THE

AMERICAN AGRICULTURIST.

Agriculture is the most healthful, the most useful, and the most noble employment of Man.—*Washington.*

VOL. II. NEW YORK, AUGUST, 1843. NO. V.

A. B. ALLEN, Editor. SAXTON & MILES, Publishers, 205 Broadway.

EARLY-SOWN WHEAT.

IN our excursions in different parts of the country the present season, we have invariably found that those fields which were latest sown to wheat last fall, have suffered the most from the fly and winter-kill. Now is this generally the case throughout different sections of the country? If so, it becomes an important matter to sow early, and instead of leaving it till the last of September, or the fore part of October, as is frequently done here at the north, it should invariably be got in as early as the first ten days of September.

The only objection which we have heard to early sowing is, that it produces too rank a growth the following spring; but this is easily obviated by pasturing it for a week or two with sheep or young cattle, the last of April, or early in May. We have been informed that pasturing wheat in the spring on rich soils, not only renders it less likely to be struck with the rust, but it also thickens the crop, and operates as a preventive to the grain being lodged. When stock is turned on to wheat fields, great care should be taken to see that the ground be sufficiently dry to prevent poaching, otherwise it might cause serious injury to the crop. The advantages of early sowing now, if our observations prove correct as to the fly, would be very great; the disadvantages we are yet to learn. Wheat being the principal money crop in large sections of the northern and middle states, too much attention can not be paid to an improved culture of this great staple product. We shall be much indebted to any of our readers who will favor us with communications on this important subject.

FINE-WOOL SHEEP.

THE article which appeared under this head in our No. of last month, was written with such haste for the press, that one important item in estimating the value that would accrue to the country from adopting a superior breed of fine-woolled sheep, was entirely forgotten. It was pencilled down in our notes, but was unfortunately overlooked in writing them out at length. It was this: On the same food, the quantity of wool would be increased at least one pound per head annually in adopting an improved breed of fine-woolled sheep, so that from the eleven millions of shorn sheep in the United States 11,000,000 lbs. extra of wool would be obtained, which, reckoned at thirty cents per pound only (it is actually worth nearer forty cents per pound even as low as wool now is in this market),

would increase the productive wealth of the farmers $3,300,000. Now add to this, as expressed by us page 98 last number, $2,227,000 for the improvement in quality, and we have an annual gain of $5,527,000 to the country from this source alone, which, according to our estimate, is more than doubling the value of the whole crop of wool now produced in the United States, we having set it down at present at $5,197,500. Adopt an improved breed of sheep generally, and the value of the wool crop would then be $10,724,500. And this is but one among the many benefits proposed to the farmers by adopting an improved stock, and an improved system of husbandry. When will the agricultural community of this land become awake to the importance of a steady, systematic, and enlightened practical course in these matters?

COMMERCIAL NURSERY AND GARDEN OF MESSRS. PARSONS & Co.

This extensive nursery and garden is situated within a short distance of the steamboat landing, in the town of Flushing, Long Island, and is a delightful two hours' sail from this city, up the East river, amid some of the most varied and picturesque scenery that can be found in the world. It was commenced in the year 1837, and now covers an area of more than 30 acres, the soil of which is well adapted for the general objects of a nursery and garden. It occupies part of an estate of 250 acres, inherited in a direct line from a maternal ancestor, Mr. John Bowne, one of the first settlers on Long Island, and who, in the year 1661, built the venerable mansion in which one of the proprietors now resides. In a country where so few antiquities exist as in ours, it is a great satisfaction to look at a fine old house, in excellent repair, with a date so antique upon it, and our pleasure was greatly enhanced by finding immediately in front of it, on the opposite side of the road, in a high state of preservation, a large, venerable oak, one of the two, under the grateful shade of which, the celebrated George Fox, the founder of the society of Friends, first preached when he paid a visit to this country. This oak is several hundred years old, and the stump of its mate which broke down from decay a short time since, still remains by its side.

And while upon this subject, we have a pleasing anecdote to recount of the preservation of these oaks. Some years since, the land where they stood belonged to a veritable Goth, we mean by this a "tree extirpator," a *genus homo*, we regret to say, which abounds rather too plentifully in this country. Well, his taste was to cut down these superb old oaks, and sell them for timber. Upon hearing this, the late Mr. Bowne, ancestor of the Messrs. P., to insure their preservation as long as time would allow it, purchased them of him, and the whole property around has now fallen into the hands of these young men, and the public may be assured that the remaining tree, will hereafter be guarded with all the care due to its venerable appearance and historical associations.

The main road on the north side of the island, passes directly through the nursery and garden, giving the passer-by a full view of its great extent and variety of tree, and shrub, and flower. On entering the grounds, the first thing which struck our attention, was the abundant room left for everything planted out, which we think is greatly in favor of the establishment; as by this arrangement, the trees, especially those of the ornamental kind, can throw out thicker and more bushy tops, and the growth of all is more symmetrical and even, and from our own experience we know them to be much hardier and healthier than under a closer cultivation. The great fault of nurseries usually is, that they lack space; and the plantings are consequently so thick, that the trees become spindling, crooked, mossy, and stunted in their growth; injuries which can never be wholly repaired, however well their cultivation may be attended to after transplanting. Trees, to attain perfection, must, like animals, grow steadily and evenly along; and it is by selecting the best varieties, giving them plenty of room, and paying all proper attention to their stock, that the Messrs. Parsons have in so short a time, gained a high reputation for the culture of choice, thrifty, and handsome trees.

Another great improvement struck us in the management of this nursery, and that is, a regular map is made of the grounds, and a register is kept of all the planting; the varieties of which generally occupy distinct heads or rows, and thus the danger in filling orders, of substituting one kind of fruit or flower for another, which has heretofore given so much dissatisfaction, is well guarded against. Our nurserymen can not be too careful in these matters; for it is a great disappointment, to say the least, after obtaining trees at a considerable expense, and waiting patiently a long time for their growth, to at length find the fruit just the reverse of what was wanted.

On entering the gate on the south side of these ample grounds, we were first attracted by a square of evergreens, containing many varieties of pines

and firs, highly valued for their utility and beauty. Among these we noticed the Norway spruce, cedar of Lebanon, Irish yew, pinaster (stone pine), white pine, &c., &c.; the Scotch fir also, and the larch, which have been so extensively and profitably planted on the immense estates of the Duke of Athol. The white spruce, a dwarf tree, we do not recollect to have seen before, and we greatly admired its fresh foliage and symmetrical shape.

The shrub department next drew our attention to its numerous and varied combinations of beautiful flowers and foliage. Of these we can scarcely give the names of even the most striking, and merely mention the shepherdia argentea, whose showy clusters of brilliant red berries are so much admired in their season; the cratægus glabra, a shrub imported by the proprietors from England, which they have found to endure the winter if protected from the sun, and which with its dark and glossy foliage promises to be a valuable acquisition to our stock of hardy evergreen shrubs. The Scotch broom (spartium scoparium), with its profuse clusters of bright, yellow, locust-like flowers is exceedingly beautiful, and we regretted that we were not there during its most perfect period of blooming.

The magnolias appeared very thrifty, and we noticed some fine specimens of the purpurea, conspicua, soulangiana, glauca, tripetala, Thomsoniana, and others, whose names we do not recollect. The seedlings of the glauca and tripetala looked thrifty, and a fine lot of the macrophylla were just showing their heads above ground.

The herbaceous plants exhibited a pretty assortment of delicate and showy flowers. Among the vines we noticed a large variety of the clematis and the honeysuckle, and also a large number of newly imported ones, whose adaptation to this climate has not yet been tested.

The forest-trees we found numerous and varied, indeed, all that are of known utility, or which are desirable for ornament, and many with which we were entirely unacquainted. The pavia coccinea is a beautiful tree of the second class, with a dark, green, and glossy foliage, and very brilliant, bearing scarlet flowers, resembling those of the scarlet trumpet honeysuckle. The robinia viscosa is quite a pretty dwarf tree, with flowers similar to the yellow locust. Among the maples were some varieties entirely new, and very desirable for ornament. The stock of ailanthus and of white abele comprised some fine trees. We also thought the ash-leaved maple extremely pretty. Of the roses we can scarcely speak, there were so many. Suffice it to say, that they embraced all the well known varieties worth possessing, and a considerable number of others entirely new to us. They were growing thriftily, and promised a fine bloom.

We next inspected the fruit department, where we found apple-trees 10 to 12 feet high, some very thrifty peaches, apricots, and nectarines. The cherries were remarkably fine; some three years from the bud would measure nearly 12 feet in height. They comprise all the known kinds. The proprietors showed us the results of a new plan they have adopted in budding the peach on the plum stock. The peaches done in this manner appeared very thrifty, and in no way inferior to those of the same age on their own stocks. The inoculation had also taken quite as generally as on the peach stock. This method of budding possesses a twofold advantage: the worm will not readily attack the stock or root of the plum, and the peaches are well known to bear much sooner, and to produce larger and finer fruit. The plums done on the same stock appeared remarkably well. We were also shown some thrifty apple-trees, which were grafted on the root during the winter before last. We highly approve of this method of grafting, for we found them unusually large of their age, and of a very straight growth. The apples on paradise or dwarf stocks were also doing well.

The strawberries comprised some twenty-five or thirty of the finest kinds. The currants, gooseberries, raspberries, &c., &c., were choice and of sufficient variety.

The proprietors are about enclosing with a hedge, a large piece of land for a Pomological garden, to contain specimen fruit trees, which they have hitherto scattered about the farm. They intend in this to test fully the quality of any new fruit, and their adaptation to this climate.

The house of Mr. S. B. Parsons is finely situated, and surrounded by a large lawn of some six or eight acres sloping to the west; affording an extensive inland view on one side, and on the other a beautiful prospect of the bay and sound, with the palisadoes of the North river, and the highlands of New Jersey melting away in the distance. This lawn, with land adjacent if it may be needed, the proprietors are making arrangements to convert into an arboretum, and hope in a few years to have planted there every variety of hardy trees and shrubs which can be procured. They already possess many rare kinds for this purpose, and among others, we were shown the Paulownia imperialis, the cedrus deodora, the quercus heterophylla, and other new varieties. Some new kinds of the ma-

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ple, beech, and elm, struck our fancy as very pleasing. It is intended to plant the varieties of each species of trees in a group by themselves, in such a manner as to exhibit the most beautiful features of the landscape; and if they carry out their present plan, we may reasonably hope to see their place become one of the most delightful and instructive to the amateurs of trees, shrubs, and flowers, that is to be found in the vicinity of New York; and those disposed to visit it will always find that attention from the proprietors, which will be sure to make their excursion agreeable.

In addition to the ground already devoted to the commercial garden and nursery at Flushing, it can be increased any time that is necessary by taking in other parts of the farm; and the proprietors being possessed of ample means, and constantly in the way of importation from abroad, and additions from our own country, they will be found at the top of their profession, and prepared to fill orders to any extent; and we do not know where they may be addressed with a greater certainty of getting the right thing, and of a first-rate quality. There are some other matters connected with this establishment which we should like to notice; but the length to which we have already gone in this article, forbids our doing so at present. The excursion to Flushing was a delightful one in the extreme, and we became acquainted, while there, with several objects before unknown to us; and it is our intention occasionally to repeat it, for the purpose of making ourselves as familiar as possible with the treasures of the nursery and garden.

AMERICAN AGRICULTURAL EXPORTS.

We think that a bright day is beaming upon America, for she is not only shipping lead to those countries whence a few years since she imported it to a large amount, but she has now commenced carrying cotton to China, several ships having already sailed for that port with full cargoes; so that instead of being overwhelmed with the cotton production of the East Indies, as we somewhat feared we might be a year or two since, we are absolutely facing these countries in their own exclusive market. The next thing that we shall expect to hear of is, that our ships are clearing from port with full freights of *wool, lard-oil, and water-rotted hemp*. Well, if our farmers and planters *will beat* all the world in amount, perfection, and cheapness of product, why we *can not help it;* and our advice is to go ahead, all right, keep moving. We think Johnny go-cart rather the smartest fellow that is at present operating on this mundane sphere, and if he will only stop his grumbling about "hard times" he will now do well enough. If he can not clear sufficient money from a farm or plantation every three years to pay for it, he seems to think it is very hard, and that he "*ain't makin' nothin'.*" But we gave him a *blue pill* on this head to digest last month, and we will see how that operates before repeating the dose.

THE HOVEN IN CATTLE.

In conversation recently with an intelligent farmer, we found him of opinion, that the hoove or hoven did not proceed from the generation of an undue amount of gas in the stomach, but in consequence of the windpipe being stopped up by too large a mouthful of grass, which cattle in their greediness when first turned on to rank, green food, frequently endeavor to swallow. He says he has repeatedly seen them relieved almost instantaneously by the use of the probang, or by merely taking a whip-stalk and inserting it into the windpipe, and thus shove the wad of grass into the stomach.

THE HONEYSUCKLE.

(Fig. 30.)

This beautiful flower is so well known that it needs no description. We have found nineteen varieties cultivated in the gardens in this vicinity, and how many more exist we are unable to say. It also grows wild the United States over, and is a great favorite, as well it may be, with the ladies

We wish it were oftener transplanted to their yards and gardens. In remote settlements, where cultivated flowers are scarce, resort should always be made to the wild ones around. Transplanting and good cultivation frequently greatly improve them, and under any circumstances, many which are indigenous to our country, are superior to the exotics for which we pay high prices abroad, and in addition incur considerable risk and expense in their transportation home. In cultivating wild flowers all this is saved, and a benefit in addition is conferred upon the flora of America. Neatly whitewashed, and surrounded by native flowers, even the humble log-house becomes a pleasing feature in the landscape, and adds much to its picturesque variety.

AGRICULTURAL SOCIETY ADDRESSES.

In the ensuing three months there will be several hundred meetings of agricultural societies, and at each of these there will be one or more addresses. The persons usually sought to make these are professional men, who, however well-informed they may be upon general subjects and able speakers, have not usually possessed that practical knowledge of agriculture, which would enable them to speak more instructively to their auditors. The consequence is, that their addresses deal in generals, and we have discourses beginning with Adam, and running down through Hesiod, Virgil, Googe, and Sinclair, to the most modern prominent agriculturist of whom the speaker may happen to have any knowledge in our own country; interlarded with something of the *clap-trap* about farmers being "the bone and sinew of the nation; the foundation and superstructure of society," &c.; all of which they have heard so often repeated, that they at last very sensibly begin to consider it as something of a bore, and bordering upon what may be technically termed *gammon*.

Now instead of these *declamatory generals*, we would recommend the addresses to be made of *practical particulars*.

There are a thousand subjects to talk about; for example, irrigation and the formation of water-meadows; ditching and draining, especially swamps and fever and ague ponds; peat and muck manure; the best rotation of crops for the locality of the society; the best kinds of stock for the same, and how it may be improved; the best varieties of poultry; the best kinds of grain, vegetables, grasses, fruits, trees, shrubbery, flowers, &c., &c.; for there is scarcely a limit to the interesting and instructive subjects that might be mentioned. Another thing, we think the addresses generally quite too long; they ought not to occupy over half an hour, unless there is something unusually interesting to discourse about, or some new discoveries to be made to the public.

TUSSAC AND ARUNDO GRASS.

In answer to that part of Mr. McCaughan's letter upon tussac grass, we give an extract from the despatches of Lieutenant Governor Moody of the Falkland islands, to Lord Stanley, one of the British ministry, just published in Part I., Vol. IV., of the Journal of the English Royal Agricultural Society. It is the *Dactylis Cespitosa*, and we have written out to England to see if some of the seeds can be obtained. It will be seen that the report upon it emanates from a high quarter, and however promising it may read, we have no doubt of the truth of the description and great value of this grass; and could its cultivation be introduced on to the waste lands of the southern seashore, it would prove a source of incalculable wealth, to that at present almost barren section of the country. And while upon this subject, we are delighted to learn that our southern friends have begun to look about them, and experiment upon some of their own natural products. Perhaps they may yet discover something, which, by a little cultivation, will prove of as great value to them as the tussac grass. There are several of the natural grasses on the prairies, which the first settlers took great pains to plow up and kill, that are now found by experience to be inferior, as grazing food, to no cultivated grass whatever.

The extract about the arundo grass (*arundo alopecurus*) is from a report of Mr. Hooker of the Falkland islands, to Governor Moody

There is another indigenous grass of inestimable value, which deserves the particular attention of every person connected with grazing and sheep-farming even in England, but more especially Scotland and Ireland. I allude to what is here called "Tussac." The tussac is a gigantic sedgy grass, of the genus Carex. I measured the length of the blades, and found them to average seven feet in length, and three quarters of an inch in width; some, in favorable situations, are longer, and if cultivated with care they would probably flourish still more vigorously. The plants grow in bunches close together, and as many as 250 roots spring from one bunch. In old plants the decayed roots of successive shoots form a cushion of dry entangled fibres, which raise the bunch from the ground. This cushion sometimes attains to a great size and height, so that a person standing in a patch of old tussac may be quite sheltered and concealed. The cushion is dry and inflammable; and where the

wild cattle and horses have completely destroyed the plants by eating down to the very roots inclusive, these lumpy accumulations of decayed fibres are left encumbering the ground with a multitude of hummocks, easily removed, however, by fire.

The grass growing in large tufts upon the high base of decayed roots resembles, at a distance, a diminutive grove of thickly-clustered palms; and from the dark green and luxuriant appearance given to the smaller islands clothed with tussac, the richness of tropical vegetation is forcibly recalled to the memory.

All the other species of the genus Carex are described in botanical works as coarse and rank, and by no means adapted for fodder, but it is very different indeed with this species. That it is sweet-flavored, tender, and most nourishing, is evident from the avidity with which all animals feed, and the rapidity with which they fatten upon it—cattle, horses, sheep, and pigs alike. For about three or four inches the roots are very agreeable to man, being crisp, and of a sweetish, nutty flavor, very much resembling the heart of the palm-tree in the West Indies, which is called the mountain cabbage.

There is an island close to the settlement, which is fringed with the tussac grass for a breadth of about 200 to 300 yards, the remaining portion being wiry, coarse grass and moss on wet land. Lean cattle turned upon this island become fat in two or three months: and the miserable old horses that return from the cattle-hunting expeditions dreadfully out of condition, soon pick up, and become quite fat upon the tussac which grows there.

The two Americans who wandered upon West Falkland for 14 months, lived upon the root daily, and formed their huts of what I have termed the cushion, rolling one to the small doorway or opening when night came on.

The long blades of the grass make but an indifferent thatch, as it is much too brittle to last when dry; there are no fibres sufficiently tough or coarse for this purpose. I may notice that cattle and horses will readily eat dry tussac when they can not procure it fresh; but an ample supply of it can always be obtained, as it is green and luxuriant all the year round.

The bounty of Providence causes this extremely nutritious grass to grow most luxuriantly in the rank peat-bogs by the seashore, where any other, even of the most inferior quality, could scarcely live. I may say that by far the greater part of the coasts of these islands are fringed with it in many places to the breadth of half a mile: all the smaller islands are completely covered with it. It grows readily between clefts in the rocks, out of shingle and sand, close down to high-water mark; but it is most luxuriant where there is a depth of wet peaty bog. Whether it will grow upon boggy land further than half a mile from the sea, can only be determined by experiment. At the proper time I shall try it, and I entertain the most sanguine hopes that it will succeed, though perhaps it may not grow so luxuriantly as by the seashore.

If it should succeed upon inland bogs, such land could be made to yield as much nutriment for cattle as any other.

I am informed that a similar species of sedgy grass is to be found in the straits of Magellan, the Auckland islands, and many other places in the southern hemisphere; but, unlike its northern relations, the southern Carex appears everywhere to be tender, full of nutriment, and the favorite food with all cattle.

Extract from a later Report, dated October 1, 1842.—In my last report I noticed the extraordinary dryness of the atmosphere, produced chiefly by the constant winds of summer. During the past winter months of June, July, and August, the excess of dampness and moisture has been equally remarkable, unaccompanied, however, by rain, and, comparatively with England, there was but little snow. The ice has been sufficiently thick to bear the weight of a man twice, for two or three days together; and the thermometer has occasionally been as low as twenty-five degrees, and once eighteen degrees during the night. The wind has been by no means so strong or frequent as in summer; and calm days, with sunshine, occurred very often—much more frequently than in England.

Upon the whole, the winter, though considered in this place as very severe, would have been thought a mild one in England. The dryness of the air is now again beginning to be apparent, and a fine summer is anticipated; already the thermometer has risen as high as sixty-nine degrees. My present opinion, therefore, is that the winters in the Falklands may be considered very mild, but moist, though not rainy, and with little wind. The moisture does not arise from rain or fog, but from the nature of the ground (a light soil upon a tenacious subsoil), nnmerous springs and rivulets, and the absence of the evaporating winds of summer.

The plant described as the tussac by Mr. Hooker, in the enclosure which I had the honor of forwarding with my report, is of the genus Carex, and proves not to be the real tussac of the islands—which it very much resembles, and might easily deceive any person, the more so as it grows in the same situations, and is also eaten by the cattle. My friend Mr. Hooker has since given very great attention to this useful and interesting plant, which is a true grass, and in very much greater abundance than the other. As soon as I can collect some ripe seeds, I will also take the liberty of forwarding them; as perhaps your lordship may deem the grass worthy of a trial in England, both inland, as on chat-moss, and on the seacoast.

Some seeds of the tussac grass, sown in the government garden, in good soil, different from that in which it grows naturally, and at a little distance from the sea, have shot up, and are likely to prove that this valuable fodder for cattle may be cultivated in any soil; but it evidently prefers moisture, and would probably require irrigation in a dry soil at any distance from the sea.

During several long rides into the country I always, as I have before stated, found the tussac flourishing most vigorously on spots most exposed to the sea, and in soil unfit for anything else to live in, viz., the rankest peat-bog, black or red. It is singular to observe the beaten footpaths of the wild cattle and horses, as marked as a footpath across

the fields in England, extending for miles over wild moorland, and always terminating in some point or peninsula covered with this favorite fodder; and amidst which it is almost certain to meet with solitary old bulls, or perhaps a herd, or a troop of wild horses just trotting off, as they scent it from a great distance.

To cultivate the tussac, I would recommend that the seed be sown in patches, just below the surface of the ground, and at distances of about two feet apart, and afterwards weeded out, as it grows very luxuriantly, and to the height of six or seven feet. It should not be grazed, but reaped or cut in bundles. If cut, it quickly shoots up; but is injured by grazing, particularly by pigs, who tear it up to get at the sweet nutty root. I do not know how it would be relished as hay; but cattle will eat the dry thatch off the roof of a house in winter. Their fondness for this food is so great, that they will scent it at a great distance, and use every endeavor to get at it. Some bundles which were stacked in the yard at the back of the government-house were quickly found out, and the cattle from the village made repeated endeavors every night to get at them, giving much trouble to the sentry on duty to drive them away.

Arundo Grass.—Extract from a Report of Mr. Hooker, 5th September, 1842.—Another grass, however, far more abundant, and universally distributed over the whole country, scarcely yields in its nutritious qualities to the tussac; I mean the *Arundo Alopecurus*, which covers every peat-bog with a dense and rich clothing of green in summer, and a pale yellow good hay in the winter season. This hay, though formed by nature without being mown and dried, keeps those cattle which have not access to the former grass in excellent condition—as the beef which our parties, for the four winter months, supplied the ships with, can abundantly testify. No bog, however rank, seems too bad for this plant to luxuriate in; and, as we remarked during our survey of Port William, although the soil on the quartz districts was very unprolific in many good grasses which flourish on the clay-slate, and generally speaking, of the worst description, still the *Arundo* did not appear to feel the change; nor did the cattle fail to eat down large tracts of such pasturage.

THE ARABIAN HORSE.

(Fig. 31.)

The Arabian is acknowledged to be the foundation of all improvement in the breed of horses, either bred pure by himself in other countries, as for example, the English thorough-bred, or by crosses, as is shown by the stocks of different nations. He is remarkable for his beauty, docility, courage, speed, and endurance. He has been known to go 120 miles with hardly a respite; run 400 miles in the space of four consecutive days, 522 miles in six days, and after remaining three days to rest, returning the same distance in five days.

They inhabit the same tents with their masters, lying down while the children gambol upon them, and in fact are regarded like our household dogs as almost a part of the family; and it is this kind treatment undoubtedly, that makes them so affectionate and docile in return. The strictest attention is paid to their pedigree and selections in breeding, and hence their continuing from generation to generation without deterioration. The first we recollect of in our reading, as having been imported into England, was during the reign of Richard Cœur de Lion, in the 12th century, when he returned from the crusades in Palestine. The first introduced into America, we believe was during the revolutionary war. Several valuable importations have since been made, particularly by Commodore Elliott. General Eaton brought home a few when he returned from Tripoli. Those sent here about twelve years since, by our *chargé* at Constantinople, were a pretty lot. We recollect seeing them when first landed in this city. Stamboul was our favorite among them. It is generally supposed now, that the Arabian can no longer improve our own or the English stock of horses, and we are rather inclined to this opinion.

SHOW AND FAIR OF THE AMERICAN INSTITUTE.

We would call especial attention to the sixteenth annual Show and Fair of the American Institute, to be held in this city. It commences on the 9th of October, and will continue for at least one week. It promises to be the largest, most varied, and attractive, of any yet held by this highly useful and National Society; and what will add greatly to its interest this year, is the meeting at the same time of the Silk Convention, and the Convention of breeders. These two last will be very important meetings, and we trust that they will be fully at-

tended from all parts of the United States. See Circular of the American Institute, and Convention of Breeders in this number.

The Reading-Room of the Institute is now open to visitors, and will prove a most agreeable and instructive lounge for all interested in agriculture, and mechanics. It is 40 feet square, and in addition to an extensive library, has numerous files of agricultural and scientific periodicals, open to all who desire an admission. It is pleasing to see the great and rapidly increasing attention among all classes to the subject of agriculture; it is beginning to be considered a science worthy the study of the most enlightened and profound.

IMPROVEMENT OF DOMESTIC STOCK.

Under this head we find in the Albany Cultivator for last month, a long and elaborate article, parts of which recommend a course of breeding so directly opposite to all true principles of which we have ever read, or heard, or seen practised, by anything like what we should consider authority in this matter, that we can not pass it over in silence; for if acted upon, it would totally destroy, in a single generation, every choice breed of animals that we now possess, and which it has cost this and other countries, so much time, labor, and money, to bring to their present state of perfection. The Cultivator says, page 107, July No.:—

"But it may be doubted by some, whether any improvement on the best of the present high bred cattle, is possible, and the idea of it be scouted as an absurdity. 'What,' it may be said, 'talk of improving a breed by crossing them with those still lower in the scale?" *We answer yes, and hope to shew there is nothing chimerical in the plan.* For illustration, we will again recur to the Short-Horns, as unquestionably at the head of the improved breeds. Breeders have enumerated a great number of points as going to make a perfect animal; to make one absolutely perfect, we will suppose that 30 enumerated qualifications are requisite; that the Short-Horns, as approaching the nearest to this standard, possess 20 of the desired qualities; and the other varieties or breeds in a descending ratio down to our native stock, which may be put as possessing but 5 of these requisites.' The question is, can an animal possessing 20 good points be improved by one possessing only 10 or 5? We answer yes, if the one possessing 20 is deficient in any of the points possessed by the lowest, or by 5. 20 may be deficient in hardihood or the power of enduring our seasons; in milking properties; adaptation to labor; quality of flesh; or some other point or points possessed in a remarkable degree by 5; and this deficiency remedied by a skilful cross with 5, which shall engraft and fix the valuable point on 20, would make it 21, or furnish a decided advance towards animal perfection."

Now the idea of improving an animal that has twenty good points, with one that has only five, we can not characterise by milder terms than saying, is as gross and perfect a piece of absurdity as we ever heard. The Cultivator seems to suppose, that man has the same plastic power over the animal creation, that the sculptor has over his clay model, and that wherever there is a deficiency in his subject, he has only to supply it with additional mortar, which he takes up from his heap at pleasure, or where there is an excess to simply pare it away! Now the only true principle of improvement in breeding which we ever heard of, is this: If an animal be deficient in any one point or more, it must be crossed by another animal *equal* to it in all its *good* points, and *superior* to it in its *deficient* ones; and then the chance barely is, that one half the produce may be *equal* to the *superior* animal thus used in the cross, and the other half not *inferior* to the *poorest.* But if an animal of twenty good points be crossed with one of only five, no experienced person would expect that the produce would possess over ten or twelve good points at most; and it would be a sort of miracle, if a single one of the produce had twenty-one good points infused into it. When animals are crossed, it is a law of nature that the blood mingles—it does not go in lumps. We must consequently take the bad with the good, and the extra hazard of deterioration, to which all breeds are constantly subject. We know that now and then, though very rarely, for example, breeding a superior Short-Horn bull to a native cow, and that produce, if a female, to the same bull again, that the third generation, the three quarter-bred animal, will sometimes be a very good one—to all appearance, nearly as good as the thorough-bred bull; but the produce of that three fourths-bred *can not be depended upon* for equal and exact breeding. We have seen cows that had only one two hundred and fifty-sixth part of native blood in them, (and very fine animals they were too, individually), bred to a choice bull, throw a calf occasionally very inferior, more resembling the dung-hill than the thorough-bred.

We suppose upon this principle, that to improve the Spanish fine-woolled sheep in hardiness (though we contend that the old fashioned Merinos were as hardy as anything that stands on four legs), the Cultivator would take a cross upon the old native, or other coarse-woolled breeds, thinking it could do so at will, without deteriorating the fine wool of the Spaniard. If so, let it look to Lord Western's experiments on this matter to be convinced of the ill success of such undertakings. Again, to give size and strength to the racer, it

would take a cross with the cart-horse, the most contemptible mongrels upon which we ever looked. We should be very glad to know *where* such animals would be *placed* after a thorough training, and a fast turn of a few miles on the course. We do not mean any unfairness in our argument by taking the cross of two different kinds for an illustration, but to place the subject in a stronger point of view, the ass is longer-lived than the horse; now suppose we wish to increase the age of the latter, why then we should breed them together, expecting that we should get, to a moral certainty, this *one* good point in addition in the produce, without any deteriorating quality of the ass. But does the mule show this perfection? And if it could be bred to the horse again, and its produce on till finally a thousandth part of the blood of the ass only appeared in the progeny, would not the shadow of its long ears still be seen, and the falsetto of its unearthly bray occasionally be heard? How is it with the cross of the Caucassian and Negro races? Divine authority has asked, "Can the Ethiopian change his skin, or the leopard his spots?"

Yet enough, for it would seem that the Cultivator is not a convert even to its own bold assertions, for further on it says: "But there must be no breeding *downward;* every cross must be *upward* both in blood and desired qualities."

There are some other positions that the Cultivator takes in this article, which are denied. For example: "It is rare indeed, perhaps never, that any single point is found in the highest degree of excellence, except at the *expense of some other point.*" We doubt from the sentences which immediately follow this just quoted, whether the Cultivator understands what it is talking about.

We have not usually found, in our experience, "the deepest and best milkers of the herd the most raw-boned, not to say the worst-looking of the whole," but quite the contrary in well-bred Short-Horns. Did the Earl of Leicester improve the good milking qualities of the Devons at the expense of their fineness of points? Were the Ayrshires so improved? And are they attempting the same with the Herefords?

It is denied that Charles and Robert Colling were the originators of the Short-Horns; on the contrary, any reasonable amount of evidence can be produced in England, to prove that Charles Colling repeatedly said, he never bred anything equal to the Short-Horn cow, which he purchased of the agent of the Duke of Northumberland. Where is the Cultivator's authority for its assertion? We suppose we shall be told of Countess that sold for 400 guineas—the Galloway cross, and all that sort of thing. Well, we shall be glad to have our memories refreshed with the story, and when it is repeated in full, we shall see how much it will avail the Cultivator.

Did "Berry and Coates co-operate most effectually in forwarding the improvement commenced by them," [the Collings]? This assertion is really too rich, and we would fain ask for the authority on which it is made. The Cultivator adds, that the reputation of being good milkers, "does not belong to the improved breed." Short-Horns, we suppose it means. If it does not, we should be very glad to know then to what breed of cows it does belong. But this we opine would depend very much how they had been "improved." If by a cross with a scrub of 5 points, on a Short-Horn of 20 points, why then we have nothing more to say. We *knock under* to all such "*improvements.*"

The public will hereafter look to the Cultivator for a new era in cattle-breeding, and they may hope, some half century hence, by its new code of rules of "improvement," to get a decent milker or two! If the Short-Horn breeders put up with such gross calumnies upon their stock, why then we are greatly mistaken in their spirit, and the sooner their herds are driven back to the place from which they came, the better. We did really believe that some *few examples* had been given on this point, and that they had invariably offered to meet the breeders of native, or any other stock to milk with them—cow for cow, or herd for herd, however small or large the numbers might be. But since the Cultivator asserts the contrary, why we suppose we must fain believe it. But here we have another question to ask. Is the Cultivator sure that the cows mentioned in its May No., by Mr. Heslip, as giving so great a product of butter and cheese, are *pure* natives? We know that Short-Horn bulls have been taken into Trumbull county, Ohio, and it is our firm belief that many of the animals there are grade Durhams in some way. We shall take the trouble, if possible, to get at the facts in this case. But native or not, we think that the breeders of thorough-bred Short-Horns will have no fear of matching their animals against them in the production of butter and cheese, grass and hay fed, or kept in any other manner it pleases. For twenty-five cows to produce 13,715 lbs. of cheese, and 309 lbs. of butter, 548 lbs. each of the former, and 12 lbs. of the latter, we do not think so very extraordinary. We have heard of a cow making 21 lbs. of butter per week, and it was

thought, with how much reason we do not know, that she might make 500 lbs. in the course of a year. What amount of cheese this would be equivalent to, we could not say, as this would depend a good deal upon the amount of caseine in the milk.

There are some other assertions in this article of the Cultivator, also a few paragraphs which have appeared from time to time in its pages, upon which we would like to offer a few comments, but our space forbids. We shall probably recur to them hereafter, as it seems to have an especial fondness for communications of this nature.

NEW YORK FARMERS' CLUB.

The monthly meeting of the New York Farmers' Club took place, according to appointment, at the Pacific Hotel, in Greenwich street, on the 18th July. General Johnson, of Brooklyn, took the chair, and a numerous body of farmers were present on the occasion, and a very interesting and instructive meeting was the result. Large bouquets of flowers were brought in by different members to adorn the room, but we saw neither fruits nor vegetables. We hope each member will feel himself bound to supply this omission at the next monthly meeting.

Mr. E. Roberts, of Michigan, read an able and eminently practical paper on the agriculture of his state. A general discussion then took place, which was followed up by some verbal statements on the production of manure by Mr. Seely of Staten Island. These were considered so valuable, that Mr. Seely was requested to write them out for the benefit of the club, which he has cheerfully engaged to do. An elaborate Report of a Convention of Silk-growers, held at Northampton Massachusetts, September last was then presented. By this report it appears the silk business is rapidly increasing throughout the Union.

Mr. Henry Steele, of New Jersey, presented a leaf from an Isabella grape-vine raised by him, and gave a description of the same. The vine is five years old, and for growth of wood, foliage, and fruit, surpasses everything of the kind we have seen. The leaf measured from the point to the stem thirteen inches, and in width it measured much more. On the vine is a number of vigorous shoots measuring from ten to fourteen feet in length, and three eights of an inch in diameter, with fruit to correspond. He has taken "Hoar's Treatise on the Vine" as his guide, which he believes contains the true method of cultivating the grape to perfection. He will be pleased to show his vines to any who may have a desire to see them. He believes the same rules laid down in Hoar for the treatment of the vine, will apply equally well to the raspberry, which he has found greatly mismanaged in this section of the country.

Hon. Henry Meigs read a letter recommending the introduction of the Wapato (a species of potato) for cultivation, which it was thought might be rendered far more valuable than our common potato. It is found at the mouth of the Columbia river, and is much used there by the Indians as an article of food.

Mr. Samuel Stevens of Long Island read a communication on the cultivation of the strawberry, which elicited much attention. We shall publish this paper in our next, and the comments of members upon it at the time.

Mr. D. J. Browne, who has spent much time in studying the nature and disease of the trees of America, gave an opinion as to that which has so greatly afflicted the sycamore for the two past years. He said it was his belief, that the disease in the sycamore had been caused by a sudden suspension or congelation of the sap by cold and frost early in spring, after it had ascended to the extremity of its branches. He spoke at some length, and as a further corroboration of his opinion, he read a paper on the destruction of the sycamores in Great Britain in 1809; but as a committee is appointed to investigate the subject, we shall defer publishing this till we get their report.

Dr. A. Jones exhibited an ingenious machine of his own invention for watering streets, and irrigating meadows and gardens, either by hand or horse-power. We were much pleased with it, and intend giving an engraving of it hereafter, with a description. It would be an invaluable instrument for the gardener, and can be seen any time at the American Institute.

Several committees were appointed to report on different subjects, and the club adjourned at 5 o'clock, P. M., after a very pleasant and profitable meeting.

A delegation of five of the members of the club was appointed to visit the Exhibition of the Horticultural Society of Boston, to be held in September. A social and beneficial intercourse will thus be established between the agriculturists of these two sections of the country.

The next club meeting will be held at 12 o'clock on the 15th August, at the Pacific Hotel, Greenwich street. Strangers in the city, and the farmers and horticulturists of this vicinity are invited to attend.

AMERICAN INSTITUTE OF THE CITY OF NEW YORK.

Sixteenth Annual Fair.—The great Annual Fair of this Institute, and exhibition of specimens of the productions of labor, art, and genius of our country, will open at Niblo's Garden, in the City of New York, on Tuesday, the 10th day of October next, at 9 o'clock A. M. Friday and Saturday previous, are assigned for the reception of articles generally, whether for exhibition merely, or in competition for premium; and Monday, the 9th of October, for arranging the articles brought to the Fair. Exhibitors, whether for competition or not, desirous of favorable locations for their contributions, should bring them the first receiving day, or early on the second, as it will enable the managers to perfect the general arrangement of the articles in season for opening the Fair to the public. Special days and times will be allotted for cattle and other stock, and for certain articles, such as flowers, &c., designed for the Agricultural and Horticultural rooms. Future circulars will furnish additional particulars.

Farmers, gardeners, manufacturers, mechanics, artisans, and friends of improvement generally throughout our Republic, are invited to second the efforts of the Institute with their wonted American spirit, which, for fifteen years past, has made its anniversaries the pride of our country, and imparted to them that national character, which the legislature, in the formation of its charter, contemplated. Gold and silver medals, diplomas, and other valuable bestowments, will be conferred as rewards for skill and industry, under the sanction of competent and disinterested judges; and all the preparations and accommodations for both exhibiters and visitors, will be provided with the same liberality as on former celebrations.

The whole receipts of the Institute have ever been deemed as so much placed in trust to be dispensed for the promotion of American industry and improvements; and they have always been faithfully disbursed. This Institute, acting in the place of a County Agricultural Society, under a general law of the state, feels that the farming interest have high and continued claims for special regard. In addition to the exhibition of cattle, horses, sheep, swine, &c., efforts will be made to obtain a very full display of all the varieties of poultry. A plowing match will also be held in this vicinity.

The productions of the factory and the workshop, of the loom, the forge, and all the varieties of handicraft machinery, with new and useful inventions, will have places reserved for them. Steam power, for giving motion to machinery, and instruments for measuring the power required for various purposes, will be provided. Exhibiters should bear in mind that their specimens will be spread before more than two hundred thousand people, and be noticed in newspapers and publications that go into all parts of the world. A number of appropriate and eloquent addresses, beside the Anniversary, will be delivered in the large saloon, and at the Cattle Show, Plowing Match, Silk Convention, &c.

Special premiums will be bestowed on the exhibition of the greatest variety of valuable household manufactures. A conspicuous place will be reserved for the beautiful displays of the productions of female hands, which for fifteen years have delighted those immense throngs that have crowded our halls and saloons. Extraordinary efforts will be made to procure a full display of American silk. The statistical returns of increasing quantities the last few years, bring us inevitably to the conclusion, that this precious commodity is destined soon to rank with cotton and wool, in its importance as an American staple. For the purpose of accurately ascertaining the present condition and future prospects of this branch of domestic industry, a Silk Convention will be held in the City of New York, some time during the Sixteenth Fair. Every silk culturist and manufacturer in the Union is invited to bring their best specimens, with all the correct data at their command; from which a report will be compiled and distributed through the country, that will, we trust, for ever settle the question in favor of the cultivation of silk in the United States. We call upon all silk culturists and manufacturers to aid in this laudable object. The cry is from all quarters loud and often repeated; "Give us a new staple to diversify labor, and new employment for that which machinery has displaced, and consummate our practical national independence."

In the growth of silk we have an article providentially adapted to all our varied soils and latitudes, well calculated to counteract sectional selfishness, and to produce a harmonious moral influence; and the vent for it in the markets of the world will exceed our ability to produce for centuries to come. Let us, if the silk culture and manufacture are feasible, and can be made to remunerate, advance at once to the point required. And how can this be better ascertained, than by a collection of facts by means of the coming exhibition and convention?

We invoke the aid of those far reaching, penetrating, disinterested minds, with true American hearts warm in their country's welfare, who can appreciate the benefits of associations like the American Institute, employing its whole means to invigorate industry, quicken invention, and impart activity and fire to genius, spreading its peaceful, genial influences far and wide, to make man better, and multiply and diversify his comforts. Every village, district, and neighborhood, and almost every family, should furnish some contribution, and be themselves welcome participators in this great annual national jubilee.

New York, July 4th, 1843.

James Tallmadge, *President*,
Adoniram Chandler, } *Vice Pres'ts*
William Inglis, }
Shepherd Knapp, } *Trustees.*
Edward T. Backhouse, *Treasurer*,
Gurdon J. Leeds, *Rec. Secretary*,
T. B. Wakeman, *Cor. Secretary*,

P. S. Editors of newspapers and other periodicals will confer a favor on a large portion of their readers, and oblige the American Institute, by one or more insertions of the foregoing address.

Communications should be addressed to the Corresponding Secretary.

MANUFACTURE OF BAGGING.—The Louisville Journal states that 14,000 tons of hemp were produced in Kentucky the past year. From this it required 8,500 tons to supply her factories, which manufactured 6,500,000 yards of bagging, and 7,000,000 lbs, of bale-rope; sufficient to rope and cover 1,100,000 bales of cotton. This leaves Kentucky 5,500 tons of hemp for exportation, which, if properly water-rotted and transported to this city, would bring $200 per ton.

GREAT WEIGHT OF SWINE.—The same paper gives an account of rather an extraordinary gain in a lot of seven pigs in Union county, Kentucky. The oldest, when slaughtered, was 1 year, 23 days old, the youngest, only 11 months; and they had gained respectively, in 320 days, 467, 414 1-2, 415 1-2, 400 1-2, 405 1-2, 396, and 357 1-2 lbs. One of the pigs weighed 98 1-2 lbs. at 3 months old.

We understand that they were crosses of the Irish Grazier and Berkshire with the common hog of the country. We wish we could have seen added the quantity of food consumed by these pigs, its value on the farm, and the value of the pork it made.

ITCH IN SWINE.—The Farmers' Journal states that this may be immediately cured by rubbing the animals affected with a mixture in equal parts of brimstone and lard.

ANGORA PEAR.—Mr. Kenrick, in the Magazine of Horticulture, says that he has no doubt of the great weight of this pear in France as stated there, nearly five pounds. It is originally from the vicinity of Constantinople and is an excellent winter variety.

BOLOGNA HEMP.—The Dollar Farmer informs us that this hemp is cultivated to considerable extent in Kentucky. It possesses the advantage of being more easily broken than common hemp, is of a white color, and finer, and stronger.

MANURE FROM SHELL-FISH.—A writer in the Boston Cultivator recommends muscles, which are to be found in large quantities on our coast, to be used as manure. He says some years' practise confirms him in their use as valuable fertilizers. No doubt of it. Clams, oysters, fish, or any marine production are equally valuable. The proper way for using is to throw in the heap in the fall, and cover with a light layer of peat or turf, so as to absorb the decaying fish, but not so thick as to prevent the action of frost. The whole mass will be found finely pulverized in spring, and can be mixed with compost, or spread like ashes. The shells afford lime, and the fish a valuable gelatinous substance of great efficiency in vegetation.

INCREASING THE MILK OF COWS.—Gentle treatment and rapid and close milking, will tend to the greatest development of the milk in cows, and the contrary practises will have the effect of materially reducing the quantity.

CURE FOR CUT-WORM.—Mr. Newton of Pennsylvania says a mixture of one part of salt to four of plaster, applied on the hill, *not in contact with the corn*, will kill the cut-worm. The most effectual remedy, however, is to dig them up whenever their ravages are apparent, and kill them.

The Southern Cultivator gives another remedy Take of China berries, boil them until a strong decoction is made; pour one gill at the root of each plant, and the worm will leave immediately. I have tried the remedy many years. It has never failed.

IMPROVEMENT IN EARLY VEGETATION.—It has been suggested that early gathered seed produce early maturity in successive crops; that potatoes, corn, and some other products will mature in successive years at the same time the seed was harvested, although they may not, when gathered, have been fully ripened. Can any of our readers confirm the proof of this principle?

TO REMOVE THE FLAVOR OF TURNEPS, WILD ONIONS, AND LEEKS.—Put into a pail nearly full of new milk, one or two pints of boiling water.

NEW VARIETY OF WHEAT.—C. Kloss of Union, Pennsylvania, has raised a superior kind of wheat from "the blue stem." Last year 1,000 bushels were raised in that county, and although all other wheat was affected with rust and smut, this entirely escaped. It weighs 65 lbs. per bushel.

DIRECTORY FOR SHOWS AND FAIRS.—We shall give next month under this head, a complete Directory for all the Shows and Fairs to be held the ensuing year in the United States and Canada, and shall be obliged to our friends if they will forward us papers containing the time of meeting of the different societies. The Hampshire, Franklin, and Hampden Agricultural Society holds its meeting at Northampton, Massachusetts, on the 18th and 19th of October. The Philadelphia Agricultural Society will be held at Philadelphia on the 4th and 5th of October. These societies are to Massachusetts and Pennsylvania nearly what our State Show and Fair are to New York. The premiums are numerous and liberal, and the meetings will be particularly well worth attending.

☞ We are again compelled to defer several editorials which have been written out some time. We especially regret being obliged to do so of excursions made in New Jersey, on Staten Island, Long Island, up the Hudson, and in Connecticut. We shall commence these next month to a certainty.

☞ WE can only say to any who have not received their paper, that the fault is not with this office. Our Nos. are carefully and promptly mailed as fast as issued. We however like to hear of all deficiencies, and will make them good.

ORIGINAL CORRESPONDENCE.

For the American Agriculturist.

NEW VARIETIES OF WHEAT.

An intelligent, close, and accurate attention to the crops in the field, would enable our farmers to introduce many new and valuable varieties of grain into general use. It is a perfectly well-settled fact in botany, that many of the products which are the objects of careful cultivation on our farms, have been so much improved from their natural condition, as to bear but the slightest resemblance to the original. Our immense drum-head cabbage, and all the other varieties, have sprung from an inconsiderable weed, the colewort (*brassica oleracea*), hardly as large as one's hand; and the whole circle of varieties of our apples, from the tiny, yet delicate flyer and lady apple, to the golden pippin, and pound royal, derive their parentage from the sour, hard, diminutive crab, which is but little larger than a green persimmon, and almost as acrid.

Nearly all the articles we raise, have been improved from their natural condition in the quantity and quality of their growth, and many of them so much, as to bear but the slightest resemblance to their uncultivated ancestry. Indeed, some of the most common and necessary of our products have been so long under an artificial management, that we do not even know the source whence they have been derived. Among these, wheat is one of the most important. It has been the object of cultivation at least as far back as some of the earliest records of sacred and profane history extend, and as the specimens of our cultivated varieties are nowhere found in a wild state, it is obvious, that its original is among the hitherto undiscovered seeds of nature. Without intending to provoke, or under any circumstances, to be led into controversy on the subject, I would suggest that its true and ultimate original is *chess*. I have scarcely glanced at the chess controversy that has raged so furiously for some years past, and have no personal experience in the matter; but the fact, which rests on some of the most unexceptionable testimony, that the *same root has produced stalks both of wheat and chess;* nay further, *that the same stalk has produced heads of wheat and chess at the same time*, would seem to settle the matter, if further evidence were wanting, in addition to the mass of proof, that chess has, in numerous instances, been produced from wheat sown, when from its being thrown out by frost, or partially destroyed from other causes, its usual supply of nourishment has been withheld. That chess should produce chess, is a most natural conclusion if the above suggestion be admitted; for when once thrown back to its original, we must infer from every botanical principle, that years of the closest attention, and most careful cultivation, would be required to bring it back to its present perfect form and character.

But my only purpose at the present moment, is to urge the more general observance of what has long been practised by the most skilful agriculturists. Numerous instances are given of the production of new varieties by the accidental mixing of others, and the observing farmer will not fail to notice this new visiter in his fields, and carefully preserve, and thoroughly test its peculiar merits. The greater part of our best varieties of wheat have been accidentally produced, and the merit of their discoverers consists solely in their vigilant detection, careful culture, and general introduction. Several heads, or even a single head, has sometimes been discovered in a whole field, which, by its superior growth, fulness, weight, and perfection, has laid the foundation of the most valuable varieties. Thus we have the Hopetown, a valuable Scotch wheat, propagated by Mr. Sheriff; the Chevalier, first detected by the Rev. Mr. Chevalier, in a field of wheat, in England; the Wheatland red, first produced from other varieties by General Harmon of our state; and the Dyock oat, produced in Scotland. A similar attention on the part of farmers, may be instrumental in the introduction of numerous other kinds, equally, or even more valuable and productive.

In observing the character of new varieties, the closest attention should be given to every feature of the grain, and its superiority fairly and fully tested before adopting it as an acknowledged improvement. It must be such, as on particular soils, will, under all ordinary circumstances of general cultivation, for a long series of years, give the greatest value of products for the same expense of cultivation. And to do this, numerous characteristics are to be taken into consideration.

1st. The general hardiness of the plant, and its capability of resisting the besetting evils of this grain, the Hessian fly; throwing out by frost and winter-killing; rust or mildew; such, it is claimed, is the Mediterranean.

2d. A good, strong, upright stalk, with just enough of straw for the object, and no more.

3d. No beard is desirable; a head well filled and heavy; and retaining the grain as long after it is fit to cut as possible.

4th. A pre-disposition to tiller well.

5th. A plump, full berry, capable of yielding a large quantity of white flour, with a large proportion of gluten, and as little bran as possible. Such is not the Mediterranean, and of course, its advantages are to be weighed against its disadvantages, and every farmer is to decide according to his own circumstances whether he will cultivate it or not. On our finest wheat-lands, it would not be grown at all, while many may be compelled to take it or go without wheat altogether.

It is possible that skill and attention in mixing would produce some new kinds of great value. The necessity of occasionally introducing new varieties, is at once seen from the fact, that such as are the best adapted to any particular soil, climate, or position, are frequently giving out, and their place must be supplied with other kinds, or great loss, and perhaps a total destruction of the crops must ensue.

The importance of the improvement of our wheat crop, in an economical and national point of view, would, at a first glance, hardly be credited. Suppose, that by universal attention throughout the United States to the most obvious, simple, and generally acknowledged rules for its improvement,

the total crop should be augmented 25 per cent. (and it could be increased nearly 50 per cent. with comparatively little additional expense), we should have an increase over the estimated crop of 1842, of more than 25,563,000 bushels. The advantages to result from the most intelligent and persevering attention to this crop, therefore, will commend itself at once to every reflecting mind.

R. L. ALLEN.

Buffalo, June 25th, 1843.

For the American Agriculturist.

COTSWOLD SHEEP.

Milton, May 29th, 1843.

I WOULD call the attention of breeders of mutton-sheep, to those lately imported by Mr. Sotham of Albany, one of which figures in Vol. II. of the Agriculturist for April, and one also in the first Volume of the Transactions of the N. Y. Agricultural Society; the latter took the first prize at Syracuse. I had the good fortune, through the introduction of a friend to Mr. Sotham, to procure the service of two of the Cotswold bucks for the last two years, and such has been the decided improvement in our flock, that I can confidently recommend them to all breeders of heavy mutton-sheep, as being superior to any I have yet seen; if there are any better, glad should I be to see them.

That my judgment may not stand on bare assertion, I add, that the one we showed at the Fair in Dutchess county, took the first premium. In Ulster county, the first prize was also awarded to one by the judges, and was afterward given to another, he being excluded on the ground of his being *imported;* and that one was a year old, out of Mr. Dunn's buck bought of Mr. Sotham, pronounced by the judges the best they ever saw of his age; so that all the first prizes in Dutchess and Ulster were awarded the stock of Mr. Sotham.

The lambs got by these bucks are of great promise, some of them weighing over one hundred and fifty pounds at six months old.

E. HALLOCK.

CONVENTION OF BREEDERS.

(CIRCULAR.)

Albany, June, 1843.

THE State Agricultural Society of New York, desirous that some fixed principles should be established as the basis of excellence in the various descriptions of farm-stock (without reference to their *relative* merits as breeds), have appointed the undersigned a committee with instructions to call the particular attention of breeders throughout the States, to the importance of the subject, and to make the necessary arrangements for a Convention to be held at the Library Room of the American Institute, in the city of New York, during its 16th annual Fair, in the month of October next, the day to be hereafter noticed; at which breeders of stock and those interested in Agriculture, are most respectfully urged to give their attendance, with a view to a full and free discussion of those forms, qualities, and properties, which most conduce to intrinsic value; and also that the distinctive characteristics of each separate breed may be as closely defined as possible.

The society believe that the decision of such a meeting will offer to the agriculturist the best information that can, at present, be elicited; and which, they trust, may be so satisfactory to the mind of every intelligent breeder, as to lead to greater uniformity of action and opinion, and *possibly* become a standard with them, by which to judge and be judged, in all cases of competition.

With these views of the subject, the committee hope you may deem it of sufficient importance to be present at the proposed Convention, and lend to its discussion the aid of your experience and talents.

The committee will be obliged by any suggestions, in the interim, you may consider of sufficient importance to be communicated to them in relation to this subject.

FRANCIS ROTCH, C. N. BEMENT.
E. P. PRENTICE, GEORGE VAIL,
LEWIS F. ALLEN.

☞ Editors of the several Agricultural papers in the United States, are requested to publish or notice the above.

For the American Agriculturist

FAIR AT FAYETTE.

Ingleside, Miss., May 23d, 1843.

MY DEAR SIR: I have just returned from attending the Fair at Fayette. I reached there about 11 o'clock, A. M. There was a great crowd present of planters and their families, and by the time we reached the extensive and pleasant bower erected for the occasion, gayly bedecked with flowers, we found it filled to overflowing with ladies, and Mr. Montgomery in the act of delivering his address, which, from what I could hear at the distance, seemed spirited and interesting.

The display of flowers was good; but not by any means as extensive as was to be expected where so many young ladies were present, every one of whom should feel bound to appear with a large and well-arranged bouquet, of the best flowers she may be able to muster. Those bouquets I particularly noted, bore the cards of Mrs. Isaac R. Wade, Mrs. James J. Colyce, Miss Caroline Dunbar, and Miss Mabella Harrison. There were many others without cards, and baskets full, as I thought upon first sight, of fresh flowers, which, upon drawing near, I found were composed of worsted work. Only one of these was marked, that of Mrs. Charles Clark. On the same table were scattered beautiful specimens of net-work, lace, worsted work, &c., &c. A basket of cocoons and specimens of silk from Mrs. B. L. C. Wailes, juvenile socks by Miss Macgruder, and a substantial, comfortable-looking rag-carpet, by Mrs. Thompson B. Shaw. Mr. Robertson, who is about establishing a large factory of such goods near Fayette, showed some splendid specimens of blankets, flannel, cotton-girthing, jeans, and above all, a piece of strong and sufficient bagging, made from stained cotton, which is assuredly destined to drive every other article out of use. All the goods exhibited by

Mr. R. were spun by the negroes, and woven on a neighboring plantation. Economy, careful management, and everything made at home, is the order of the day among us here. One principal item is *cotton-bagging*. This, it is evidently our interest, in every way to encourage.

There was a fine show of vegetables—beets, peas, onions, turneps, potatoes, beans, cabbage, &c., &c. An excellent specimen of spring-wheat was offered by P. K. Montgomery, and received a premium. Mr. M. cultivates a considerable quantity. This is another item of saving that should be more generally attended to. I gathered three flour-barrels heaping full of clean upland rice, last year, from less than one eighth of an acre of land, and shall continue its cultivation. I shall be able, this fall, to supply any one with a couple of quarts or more for seed, who assures me that he is a subscriber to at least two agricultural papers; one of them being published in the state where he resides, if there is one published. "None other need apply!" Any other seeds, plants, or cuttings, that I may have to spare, will be distributed on the same conditions. Mr. Isaac Dunbar received a premium for samples of wine made on his plantation, of the vintages of 1841 and '42, which are assuredly the best specimens of domestic wine that I have met with. The exhibition of cattle, horses, hogs, and sheep, was pretty good. The working model of a cotton-press excited much attention. But I must refer you to the published reports, which I will send you, for further particulars. The dinner was an extensive affair, and—but, it was in *Jefferson county*, so I shall add no more. Ever yours,

THOMAS AFFLECK.

For the American Agriculturist.

SPURREY FOR SANDY SOILS.

Buffalo, June 13, 1843.

THIS is a plant which is cultivated to a great extent in Denmark and Flanders, on the poorest sands. It is considered there as the most profitable crop that can be grown on very thin soil. Von Voght says: "It is better than red or white clover; the cows give more and better milk when fed on it, and it improves the land in an extraordinary degree. If the land is to lie several years in pasture, white clover must be sown with it. When sown in the middle of April, it is ripe for pasture by the end of May. If eaten off in June, the land is turned flat, and another crop is sown, which affords fine pasture in August and September. This operation is equivalent to a dressing of ten loads of manure per acre. The blessing of spurrey, *the clover of sandy lands*, is incredible when rightly employed."

It is used as hay as well as for pasture, and is eaten greedily by sheep. The seeds are rich and highly nutritious for all kinds of stock, and afford, when expressed, a valuable oil. We think our poorest sandy soils, such as are to be found on our Atlantic coast, which are not rich enough for clover, would be admirably adapted to this crop, and its introduction might be the means of affording a profitable rotation with rye, and eventually produce, with judicious management, an entire renovation of extensive tracts, of what is now almost entirely waste land. Schwartz, who is esteemed high authority in Germany, says, "without spurrey, the Campine (Kempenland, a district in Dutch Brabant), "*the best cultivated soil in the world*, would still have been a desert. It requires no manure for itself, and even when mown, by the residue it leaves, it gives back more than it takes from the soil; and except for the seed, it requires no preparation, and it will grow where no other crop, excepting rye, will live." Will some of our enterprising and intelligent farmers, having land adapted to this crop, give the experiment a thorough trial?

R. L. A.

From the Brit. Amer. Cultivator.

BERKSHIRE HOGS.

MR. H. M. Wakeman of the village of Yorkville, one mile north of this city, slaughtered in the month of December last, two full-bred Berkshire pigs, aged 7 months and 5 days—the one weighed 205lbs., and the other 225lbs. net weight. They were purchased from Mr. Severn, Brewer, of Yorkville—who is well known to many of our readers, as a successful breeder of this our favorite breed of swine—when ten weeks old, and required no extraordinary care or feed, to fatten.

A writer in the *Farmer's Gazette*, Connecticut, in eulogizing the English breeder, says, they have given the Berkshire swine size, greater than an alderman or lord-mayor of London; fine formed, symmetrical limbs; fine, thin, glossy hair; soft, *lady-like skins*, and great hardiness of constitution—made them prolific breeders, best of nurses, of thrifty growth, early maturity, easily kept on grass, and will fatten at any age. Their dispositions, quiet, and powers of endurance great; and their meat is of the best kind, lean where they should be, and fat where you want it; hams and shoulders lean, and delicate, and broad sides, the best of mess.

From our knowledge of Berkshire swine, we feel no hesitancy in bearing out the above writer in his remarks, and would recommend every farmer to *engraft* either the Berkshire, improved Durham, Yorkshire, or some of the breeds that are celebrated for their propensity to fatten at an early age, on their breeds. A single cross will satisfy them that the difference of breed does not consist merely in the difference of keep. The day is not far distant when fattening pork for the British market will be found a profitable business for the Canadian agriculturist. The success of which, however, will much depend upon the skill practised in feeding and curing. As a public journalist, we will not lose sight in giving such information on these two important points, as will enable the Canadian agriculturists to compete in a very few years, with the very celebrated Dutch and Irish pork curers. In the meantime, we beg to suggest to those who intend to engage largely in the business, the propriety of selecting a breed of swine as above, without delay. The most valuable hams and bacon that are sold in the British market, are made from pork from eight to ten months old, averaging in weight from 160 lbs. to 220 lbs. each.

By adopting this system, a great advantage will be gained over the old plan, both in feed and trouble, as no store hogs need be kept during winter, unless it be breed sows, which should be managed so that they would drop their pigs during the month of March or the first of April.

For the American Agriculturist.

REMEDY FOR BUGS AND WORMS ON THE GRAPE-VINE.

Mississippi City, 18th June, 1843.

Dear Sir: My grapes are now nearly full-grown, and have had no rain since they were in bloom. A friend of mine this spring, said I was an enthusiast about the cultivation of the grape in this country; that they would not succeed, &c.; that he had tried them, and found a small bug or louse would get on the leaves and kill them, and cause the grapes to drop off. This made me more vigilant, and on the 10th May, I discovered the bug he spoke of in great numbers on the young leaves and ends of the branches. I immediately commenced pruning off all the young branches they were on, leaving one joint above the last bunch of grapes, and fed the milk cows on the young branches and leaves. The cows improved very much on this grape-vine fodder, and in a few days no more bugs made their appearance; and I found both them and the grapes had been benefited by the operation.

Again on the 1st June, a small, yellow worm, with black marks across it, made its appearance in considerable numbers on the grape-leaves. I once more commenced pulling off all the leaves they were on, and soon got clear of them, still further benefiting the grapes and cattle. They are all no doubt the larva of some fly or bug that lasts but a short time, and appear to me to be sent as overseers or guardians, to admonish us of the necessity of pruning our vines and feeding our cattle. However, be this as it may, our grapes are now nearly full-grown, the crop heavy, and every appearance that they will do as well as I could desire.

Egyptian Wheat.—A neighbor of mine has tried the Egyptian wheat, and finds it succeeds well here. I am trying the buckwheat, and feel satisfied it will do sufficiently well, to at least make a valuable manure for our poor land.

Tussac and Peruvian Grass.—We are all anxiety here to get the Tussac grass, so highly spoken of by Captain Ross in his visit to the Falkland islands. Can you give us information how or where it is to be had? I am now trying the Peruvian grass; a part of it has lived through the drought, as well as a little lucerne. There are many experiments now being made in this vicinity, which I hope will prove of great utility to us all in this section of country, and not entirely useless to the subject of agriculture in general. I do not know a man in this country, who is not doing more in the way of agriculture this year than ever before; and although our beginnings are small, these may, by persevering industry, guaranty us important results.

The first numbers of your second volume, give assurance of all you promised, and every person I have heard speak of it, is highly pleased with the work. We have a very valuable paper published in our own state now, the Southwestern Farmer, which I feel a sort of state pride in supporting; but we need all the information you can both give us, and I hope to see you and all those engaged in the laudable pursuit of dispensing useful truths well patronised. J. J. McCaughan.

For the American Agriculturist

BOMMER'S MANURE.

New York, June 12th, 1843.

Dear Sir: I herewith send you a report of a committee of farmers, on an experiment of my process of manufacturing manure, recently made at Flatlands, and if you think it worthy, I should be pleased to see it inserted in your paper.

George Bommer.

A committee consisting of the following gentlemen. Elias Hubbard, Esq., of Flatlands, Ferdinand L. Wyckoff, of New Lotts, Michael Stryker, of Flatbush, Henry S. Ditmas, of Flatbush, Johannes Lott, jr., of Flatlands, appointed from a large company of farmers, assembled to examine Mr. George Bommer's method for making vegetable manure by fermentation, on the premises of Garret Kowenhoven, Esq., of Flatlands, in this county, respectfully Report—

That after careful examination of a heap laid up on the 19th of April, and opened this afternoon (May 3, 1843), they most cheerfully acknowledge that the change produced upon the materials used, far exceeded their most sanguine expectations; said materials, consisting of straw and salt hay, presented, when opened, the appearance and smell of rich manure.

Said committee further report that they also examined the book containing Mr. B's. method, and are fully persuaded that the various ingredients used, are all, in themselves, beneficial, and in their combination must produce the most favorable results. The committee most cordially commend the above method to the serious consideration of the farmers of Long Island.

By order of the Committee.

Elias Hubbard, Chairman.

Flatlands, May 3, 1843.

As our correspondent has modestly omitted saying anything of the fine points of his beautiful South-Down ewe (Fig. 32), we shall take the liberty of doing it for him. They may be briefly enumerated as follows:—

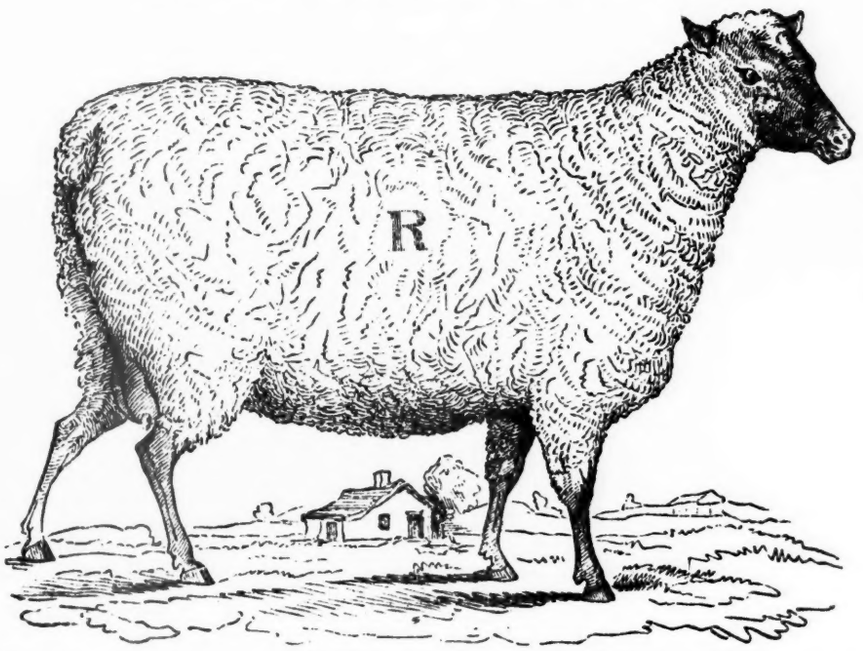
A fine, clean head; eye bright, with the orbit not too prominent; short neck; straight back; ribs springing high and bowing; wide loin; tail set on well up; long from hip to rump; very deep in the flank; full twist; round, projecting brisket; fore legs standing perpendicularly under the body; sound hoofs, and well woolled on the belly and thighs.

We are also indebted to the same source for a spirited sketch of a native sheep (Fig. 33), with the points all lettered. On these we shall make

no additional comment, as they *eloquently* speak for themselves. The reader has now a comparison set before him, and can choose according to his fancy. If he wishes a good, profitable sheep, the wool of which is abundant, and sufficiently fine for family use; the whole carcass the best of mutton; the hams *lean, tender, juicy, and particularly heavy*, and well adapted for curing like venison (to which it is scarcely inferior), to be exported in large quantities at a handsome profit to Europe, he can take the South-Downs. On the other hand, if he prefer a miserable, ill-bred, rambling, coarse, loose-woolled sheep, which will never pay a summering, much less a wintering, let him adhere to the native.

We believe it is pretty well known, that Mr. Rotch has repeatedly imported the choicest South-Downs, from the very best flocks in England, the last of which, we selected for him nearly two years since, from the celebrated blood of Mr. Webb at Babraham, and brought over with us on our return to America. All of these he is breeding with great care, and for a more particular account of these splendid sheep, we must refer our readers to the article "Tour in England, No. 4," Vol. I., page 103, of the American Agriculturist.

SOUTH-DOWN EWE, LITTLE WOOD-CHUCK.—(FIG. 32.)



Bred by, and the Property of Francis Rotch, Esq., Butternuts, Otsego Co., N. Y.

For the American Agriculturist.

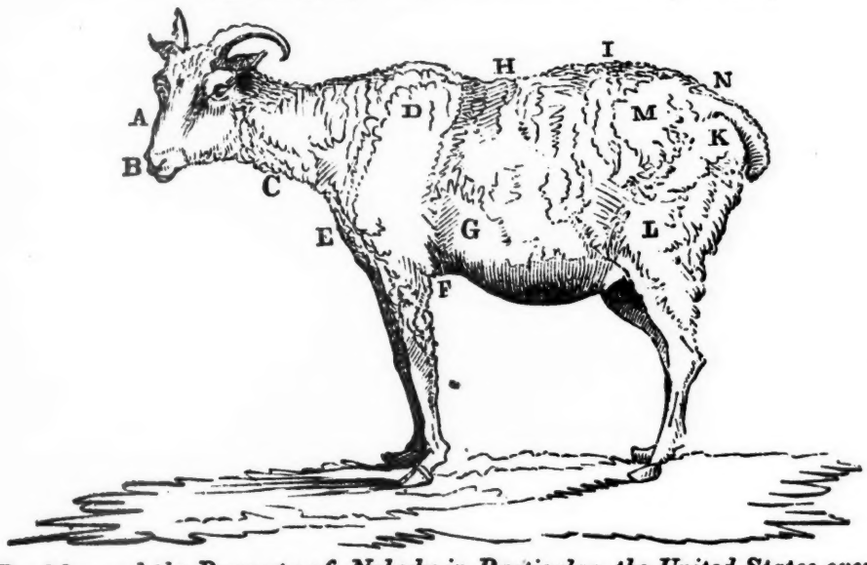
SOUTH-DOWN SHEEP.

I HEREWITH send you a drawing of a snug, heavy, little South-Down ewe, known on the farm by the soubriquet of the Little Woodchuck. I have in hand a drawing of a buck of exactly her stamp, both a mite too short, but all solidity and weight. He is by Ellman's best buck, and was sent me from England in a very fine ewe.

F. R.

Butternuts,
23d May, 1843.

NATIVE EWE, WILD AND WORTHLESS.—(FIG. 33.)



A—Face.
B—Nose.
C—Neck.
D—Shoulder.
E—Bosom.
F—Brisket.
G—Fore flank.
H—Chine.
I—Loin, or saddle.
K—Rump.
L—Leg.
M—Hips.
N—Crease, or crack. This is a channel along the sacral bone just at the setting on of the tail.

Bred by, and the Property of Nobody in Particular, the United States over.

We quite agree with the respected writer of what follows, that we have little hope to learn anything valuable abroad upon the culture of hemp. Returning to the United States after a residence of nearly two years in Russia, we inspected the hemp plantations of the west, and became convinced that Kentucky was in advance of any part of Europe in its cultivation, though not in the preparation for market, as is evident by its selling for all sorts of prices here, from $60 to $190 per ton, while the Russia brings $200 to $210 per ton. We have not a doubt but that hemp can be as well prepared at the west for market as in Europe, and our countrymen owe it to themselves to see well to this matter. They may then become large exporters, and derive great wealth from its culture. By reference to remarks on our price current last month, it will be seen that Mr. Clay's hemp sold for $190 per ton in Philadelphia, and was considered equal to the best European article. Our cotton-planters would think it very odd to be beaten in their market by the poor, ignorant natives of India; why then should a hemp-planter yield in skill to the serfs of Russia? We hope it will not be so much longer.

For the American Agriculturist.

CULTURE OF HEMP.

Prospect Hill, Ky., June 5th, 1843.

If any improvement in raising hemp-seed should be made, (and I will take some pains to inquire of our best hemp-growers) I will communicate with you on the subject, after our fall crops are secured. I was amused in reading, recently, a document on the Russian mode of cultivating and water-rotting hemp, furnished from the navy department. It shows, I think, that we have little reason to hope for any useful information from that quarter (Russia) as to the culture of hemp. Take for instance the following: "Hemp planted for seed" when ripe, "should be *pulled* up by the roots, and be placed under a *roof* or in the shade, in an upright position."

"After the seed has been thrashed out, the *branching stems* may be exposed to air and moisture, by spreading them on the ground, for *dew-rotting*."

"To produce a good crop of fibrous hemp, it should be sown *in drills*." If sown by hand "*two bushels* of seed should be used to the acre."

"To obtain clean, strong, and fine hemp, it is of great importance that the male plants should be separated from the others, at a proper time. The only method by which this can be done is to *pull up by the roots*, at the proper time, every male plant. The time for *pulling* the seed or female hemp will occur *several weeks after the male hemp has been disposed of as above. Pulling up by the roots* is much to be preferred to cutting with any instrument. The *crowns* of the plants, thus gathered, should be laid together without regard to the equal lengths of the stems, but in gathering a handful, or bundle of hemp, *those of equal length* should be selected as far as practicable."

But enough of this nonsense. If I were to pursue the Russian method of cultivating hemp as explained in the article referred to, I am quite sure I could not manage one acre as easily as I manage five, according to our Kentucky plan. Besides, if we were to attempt to traverse our thickly-sown hemp to *pull* up the blossom hemp (about one half, instead of one eighth, as stated in the article above referred to), and to carry it out from among the seed hemp, the latter would be nearly all trodden under foot.

Very truly and sincerely your friend,

A. Beatty.

For the American Agriculturist

MANAGEMENT OF THE DAIRY.

'Ill huswife, unskilful, to make her own cheese,
Through trusting of others hath this for her fees;
Her milk-pan and cream-pot, so slabbered and sost,
That butter is wanting, and cheese is half lost."

Tusser.

Old Tusser knew well the art of dairying. Intelligence, care, and neatness in managing, are the great requisites he inculcates, and without each of these, it is impossible to succeed in producing good butter and cheese. Another remedy for a deficiency of either, he properly enough advises be applied to the dairy-maid,

"If cheese abide tugging, tug Cisley a crash,
And if baies don't mend Cisley, then shift her aside."

After providing a dairy-maid of the proper standard, which, in all cases, ought to be found in the farmer's *better-half*, the farmer must provide a good stock of cows, and see that they be well attended to. They must give *good milk*. There is almost as much difference in the milk of cows, as there is in wheat and chess. They must also be well fed. Rich food, and abundance of it, makes rich milk and in large quantities. The cows must have plenty of clean water; and *they must at all times be well salted*. They should be managed kindly, and milked quickly to induce them to yield all the milk; and the stripping should be all drawn, as the milk rapidly improves in quality toward the last.

When strained for butter, the milk may be placed in tin-pans or stone-jars, of any convenient depth. It is a mistaken notion that more cream will rise from a given quantity of milk in a shallow, than in a deep vessel. In many dairies, scalding the milk is practised. This produces a larger quantity of butter, and when fresh, is well flavored; but it soon becomes rancid. The cream should be kept in a clean, cool, well-ventilated place; a cellar or well-shaded, stone dairy-house, over a running stream, is best in summer. In this, the churning should also be done, and the butter kept.

Some churn all the milk. This gives a greater quantity of butter, but is attended with much more labor in churning. When, however, it is done by a little stream of water, or by goat, sheep, or dog power, it is of small consideration. Cold water should be added to the cream in warm weather and warm water in winter, so as to bring the tem-

perature of the cream to between 50 and 55 degrees at the commencement, and the process of churning will carry it to 60 degrees, or upward. Extensive experiments in Scotland have shown that the greatest quantity of butter has been produced at 60 degrees, and the best quality at 55 degrees. Mr. Aiton describes the process common in the dairy districts of that country, which is to place the milk when first drawn in coolers for 6 or 12 hours. When entirely cool, it is then put into a large tub a second or third milking may be added, till the whole is loppered. It is then ready for churning, but if the lopper is not broken which causes it to ferment, it may remain several days. The churning is commenced at 50 to 55 degrees, but it must attain 70 degrees before the butter can be separated.

When collected, the butter must be thoroughly cleansed of every particle of buttermilk. This can only be done by working it, either with or without cold water. A ladle ought always to be used for this purpose, the hand never. Nothing should be then added to it but *fine salt.* Vast quantities of butter are yearly made in the United States, which are used for no other purpose but soap-grease, from the total want of all care in preparing it. Five things are required in producing butter to keep for a distant market. *All the buttermilk must be worked out; pure, fine salt used; and during this process and afterward, the butter should be kept cool; the vessels in which it is packed must be sweet; and they should be closed from the air.* When filling a vessel with butter from successive churnings, brine may be placed over the top to exclude all the air, or a clean cloth used, saturated with salt.

Cheese can only be made to advantage when the cows have a free range in a summer pasture. Unless their food contains a great deal of nitrogen, which it seldom does, exercise is absolutely essential to develop the casein, which is the peculiar principle of cheese. All the care and neatness enjoined above for making butter, are equally required for making cheese. One or more milkings, if sweet, may be made into a cheese. No cream should be taken from the milk. When enough milk is obtained, heat it to its natural temperature, and add rennet sufficient to produce coagulation in 30 or 40 minutes. For this purpose a piece two inches square, and soaked in a pint of water for 12 hours is generally sufficient for a cheese of 20 lbs. The curd is then broken into fine pieces, and all the whey run off, when, after being drained, it is placed in the hoop, and under the press. After 10 or 12 hours, the cheese should be rubbed with fine salt and replaced in the press, where it may remain 48 hours. If the whey is set in pans, it will produce cream which may be churned into butter for greasing the cheese. The cheese should be turned daily at first, and occasionally afterward till it is cured. It should be always kept in a cool, dry place, and when ready for market is best preserved by packing in a cask with clean, dry oats.

Use no coloring for cheese. Annatto, which is generally supposed to be used for this purpose, is a good vegetable medicine enough for dysentery and some other disorders. But the trash sold for Annatto, and such as is used for coloring cheese, is the vilest compound ever presented for human food; consisting of old powdered bricks, starch, turmeric powder, train oil, potash, soft soap, quicklime, chalk, pipe-clay, and sometimes a little of the genuine article added. Even if pure, it would not improve the cheese; and filthy as these ingredients are, they injure it just in the proportion in which they are used.

An agricultural committee in Jefferson county N. Y., examined 27 cheese, and 10 butter dairies, comprising 829 cows, in the fall of 1842, and they report that the cows make on an average 318 lbs. of cheese each, beside 40 to 50 lbs. of butter in the fall and spring. The cheese averaged 2 lbs. 2 1-2 oz., and the butter dairies 13 1-2 oz. per day. The cheese at 5 1-2 cents per lb. will exceed the value of the butter at 12 1-2 cents per lb., 1 3-8 cents per day. The comparative value of the offal for pork-making, and the labor in preparing each, must then determine which is the most profitable article for market.

R. L. A.

Buffalo, May 15th, 1843.

For the American Agriculturist.

CULTIVATION OF COTTON.—No. IV.

Log Hall, Miss., July, 1843.

In my last I gave you as minutely and as distinctly as I was able, the mode I pursue in the working of the crop; which is pretty much the same followed by some others, I would not say generally, because I know very little how many of my neighbors get along, finding enough to do at home to keep matters and things a-going. But I believe this plan is pretty much the same as is generally pursued.

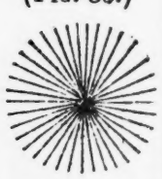
Cotton-Plant in Full Bloom.—(Fig. 34.)

After my crop has grown so large as to meet in the row, or to be injured by the plow, I have the

grass chopped out with the hoe, especially if there has been rain, for then, there springs up a grass, called by the opposite names of sour or saltpetre grass; not that I fear any injury to the crop, only as furnishing more trash to get into the cotton when gathering, or keeping the earth wet in the mornings by dews. I forthwith prepare for gathering cotton any leisure time (as our saving-fodder time is now at hand), such as making baskets, sacks, cleaning up gin-house, &c., &c.

In all this country each hand has a cotton sack and cotton basket for picking; the first made out of stout, yard-wide Lowell goods, by cutting off one and a third to one and a half yards, doubling and sewing one side and end. On the open end attach a strip of cotton doubled, long enough, when over the shoulder, to keep the sack off the ground when standing erect, this is sewed on each side so as when the right arm and head are passed through, similar to the belt of the bayonet or broad-sword, the weight rests on the left shoulder, and the sack against the right hip. When picking, the cotton is placed in this sack until full, which will weigh from 15 to 20 pounds, and then emptied into the hamper or basket, placed in a central point of the day's picking. This is made of young white oak, some 3 to 5 or 6 inches in diameter, growing in low ground, by cutting off a piece about seven feet long, quartering, and then splitting into *splits* about three quarters to an inch wide, and as thick as a case-knife blade, and ribs somewhat thicker. Take according to size of basket wanted, some 15 to 22 or 23 of these ribs, and lay them on the ground crossing each other thus, and commence weaving in the splits as near to the central point as possible, by fastening to the bottom rib first, running over and under until all round; insert an odd rib, for 15 or 20 will give an even number of ribs, each long one making in fact two, and if an even number, the splits will round all alike; but by having an odd one, the rib that was outside comes next inside, &c. After the bottom is filled up the size wanted, double the ribs over on the bottom, press on them with the foot all round until they will assume, more or less, an erect position, then continue around until the proper height. Now double down the rib so as to enclose the last split, and run the end down into splits, so as to make fast. Get out now two pieces of the white oak, about one third of an inch thick, take off the corners with a drawing-knife, put one on the inside, the other outside of the last split around the top of the basket, and wrap it well with thin, narrow splits, over and under the last split. This basket should do for two seasons, the bottom of my largest is about 27 inches across, and about two feet high, will hold about 150 pounds of cotton, or three bushels of shelled corn in the ear.

(Fig. 35.)



The next thing is cotton-scaffolds for sunning the cotton. I only use the shed attached to my gin-house, 62 feet long, and 12 wide. The best made use of by our neatest planters, are made of plank, attached with hinges (like a folding leaf table reversed), and resting on a frame-work, so that at at night, or a rain threatening the leaves can be folded up, and shelter the cotton. The first of these was described to me 10 years ago by the late Mr. William Bacon, who was at that time the most systematic cotton-planter I knew—a Northerner. Other kinds of scaffolds are made by cutting cane about five to six feet long, and weaving together with linn-bark, of a tree called here linn or wahoo, and laid crosswise on stakes and poles. Others split out boards.

The gin-house now undergoes a rigid examination. The gin-stand should be sent off to the gin-wright, if necessary; the band be put in order, which should have been well greased, and hung up out of the way in the winter; the running gear trained, plummed, and leveled; and the house again thoroughly cleaned out, as it is presumed it was done, when the last season's ginning was done. I use a 60-saw gin-stand; a light draught for four mules, the running gear being Philadelphia castings for a 12-foot wheel, fastened to a wooden wheel by bolts and nuts. I could give you a minute description of number of cogs in wheel, and in spur or trundle-head, size of band-wheel, and speed of the saws; but as I purpose to make an examination into this matter the ensuing month among my intelligent brethren in the southwest part of this state, I will postpone and communicate to you hereafter in the east.

To make fine cotton, there is certainly much depending on the gin-stand, the speed, &c., in aid of which there are a variety of improvements, as the flue, false grates, and a thrasher, though of these hereafter; for the present I think the flue will entirely supersede all others. As I think of concluding with my last article, and have yet only given you two pages, I will offer some views I have on the handling of cotton, though their correctness is questioned by many; yet as account sales are "stubborn things," I may be allowed to hold on, until there is a demonstration to the contrary.

Cotton should be gathered from the field as clean as possible, taken to the scaffolds and dried until the seed will crack when pressed between the teeth, not crush or mash, but crack, with some noise. It should be frequently turned over and stirred (all the trash and rotten pods taken out while this is being done), so as to insure its drying earlier.

If seeds are wanted for planting, gin the cotton immediately, and spread the seed over the floor some five inches thick, until perfectly dry. If the cotton-seed be not wanted, pack the seed-cotton away into the house, to remain until a gentle heat is discovered, or until sufficient for ginning; after it has heated until a feeling of warmth to the hand, and it looks as if pressed together, open out and scatter to cool. This cotton will gin faster, have a softer feel, is not so brittle, therefore not so liable to break by rapidity of gin, and has a creamy color; the wool has imbibed a part of the oil that has exuded by the warmth of seed, and is in fact restored to the original color; for the oil being vegetable, it is dissipated by sun and air, and the color by moisture (of rain and dews) and light. I have known of a number of sales made of this description of cotton, and even those who are most strenuous against the heating, admit it bore a better price.

No one supposes if cotton be put up wet, dirty, trashy, with rotten pods, that it is benefited; but whoever thinks of such a thing, unless it be one who loves the argumentum ad hominum?

What little knowledge I have in farming, has been acquired by years of close attention, reading, and reflection. I do not think I know everything; far, very far from it; I know enough, however, to know I have much to learn; I therefore ask of others to correct me, if wrong, being anxious myself to improve, and aid others in improvements. I ask them yet farther, to examine, reflect, try; if wrong, discard; if right, adopt; and return the benefit by throwing in each one his mite to the farming knowledge of the country.

M. W. PHILIPS.

We should be glad to be informed by any of our southern friends, whether they have adopted the method of planting the top part of the cane only, as detailed by Mr. Brown in his present letter on Cuba. On those plantations which we visited last year in Louisiana, we found that the whole length of the stalk of cane was planted, and that it lasted only three years, at which time a new planting became necessary. Now in Cuba it seems the plantings last twenty years or more. Is this owing to a difference of climate in its favor, or is it to be attributed entirely to the different method of planting? We found the Otaheitan, as well as two other varieties of cane under cultivation on the Mississippi.

For the American Agriculturist.

THE AGRICULTURE OF CUBA.—No. II.

Ingenio Atalaya, May 17, 1843.

DEAR SIR: The plantation I date this letter from contains about 2,000 acres, 400 of which are appropriated to the culture of the sugar-cane, 50 acres to plantains, 20 acres to yucca and maize, and about 300 acres to fruit-trees and vegetables. The other part of the estate consists of pastures and woodlands. It is stocked with about 600 working oxen and neat cattle, 300 cows, 40 horses, and 100 negroes adapted to field labor. The whole product, in a fruitful year, is about 1,300 hogsheads of molasses, or a corresponding amount of sugar, which will usually sell in the United States for $35,000.

This plantation is laid out in a very complete manner, which I will briefly describe. Near the centre of the cultivated grounds there is a beautiful hill elevated about eighty feet above, and situated about half a mile from tide-water. On the top of this hill, close by the sugar-works, is the mansion of the proprietor, tastefully ornamented with piazzas, and surrounded by gardens, groves of plantain, orange, and other trees. The natural declivity of the ground on which the sugar-house is situated, is sufficient for the expressed juices and sirups to flow, without assistance, from one part of the works to the other, a desideratum that should always be sought after in erecting works of this kind. The whole estate is laid out with avenues radiating from the dwelling-house, which enable the family of the proprietor to overlook the whole plantation, and all the operations of the field.

The soil of this estate and vicinity, consists of a dark-colored mould of several varieties, with a clayey or limestone substratum, and although its surface quickly dries after a fall of rain, its under portions retain a considerable degree of moisture, even in time of drought, and seldom requires trenches for draining in the wettest season.

The cane usually cultivated on this part of the island is the Otaheitan variety. It is propagated by cuttings of about a foot and a half in length, inserted in the ground in an upright position just before the commencement of the rainy seasons. These cuttings usually comprehend the top part, deprived of their leaves, and two or three of the upper joints of the canes. They are usually planted about eight inches apart, in trenches from thirty to thirty-three inches asunder, and from ten to twelve inches in depth. Sometimes, however, the cuttings are laid longitudinally in the trenches, and covered with earth to the depth of about three inches, which places the plants in a favorable state for deriving the utmost advantages from the ensuing rains. In two or three weeks after planting, the young sprouts shoot up a few inches above the surface, which are carefully hoed and kept clear from weeds for about four or five months. The off-shoots which spring up from the suckers are taken off, as they imbibe nutriment from the parent plant, and seldom arrive at maturity themselves.

The time for cutting varies with the soil and the season. The whole plantation is cut every year, and usually occupies the period from December to the September following. When the cuticle of the canes become dry, smooth, and brittle, their piths grayish approaching to brown, the juice sweet and glutinous, and when cut crosswise with a sharp knife, without appearing soft and moist like a turnep, then they are considered in perfection, and in a fit state to cut.

As soon as the canes are cut, if the rainy season be near at hand, all the rubbish of the field, such as weeds, decayed leaves, &c., are laid about the roots of the plants, the earth being well loosened with a hoe, and cleared of weeds, but little other labor is required until the canes are fit for cutting.

Instead of the excessive labor of planting anew every year or two, as in the southern part of the United States, with careful management, the stools or roots of the canes here, are allowed to continue in the ground for years without replanting. On this estate, where I have passed several months, there are fields of cane which were planted twenty-two years ago, and have been cut every year since, yielding each year a good crop.

This process of reproduction consists in the development of the buds which form the secondary stool of a plant which has been cut, and are called *retoños*. They are designated by first, second, third, &c., according to the age of the root from which they spring. They annually diminish in length of joint and in their size; the first being

larger than the second, the second larger than the third, and so on in a deteriorating progression. When, however, they arrive at maturity, receiving the benefit of air, and the light and heat of the sun, they yield a much richer juice, and produce a better quality of sugar. Their juice is much easier clarified, and less care is required in its concentration, than in the canes otherwise cultivated. Hence, by this method, the produce of sugar from the same quantity of ground, if not equal to that from canes raised the other way in soils more recently worked, perhaps yields, in a long run, quite as much profit to the planter, provided the comparative expense of labor attending both modes be taken into account.

The sugar-cane here is perhaps less liable to accidents than in any other part of the West Indies. With the exception of fire, which sometimes consumes whole cane-fields as though they were composed of gunpowder, there are not many calamities that befall it. There are but few insects which feed upon it to any extent, and this is of rare occurrence. Formerly much evil was experienced by the depredations from rats, but this has been obviated by introducing into the fields domestic cats which have run wild, and have propagated their species to an extent sufficient to destroy these depredators.

In your next number I propose to resume this subject, and give an account of the modes of manufacturing sugar as practised here.

D. J. Browne.

For the American Agriculturist.

RUST IN COTTON.

Ingleside, Miss., June 26th, 1843.

After giving a gloomy account of the prospects of the rice, cotton, and corn crops, on the bottoms of the Mississippi, and many of its branches, owing to the long-protracted, deluging rains, Mr. Affleck proceeds to say:

In addition to the foulness of our crops, and the utter impossibility of cleaning them—and the fact that even on hill lands the cotton is growing much too rapidly, throwing out long, overgrown branches, with scarce a *form* (blossom-bud) to be seen—it is becoming, in many fields, seriously injured by *rust*.

This rust is a disease for which the *causes* assigned, and *cures* proposed, are various enough. It shows itself everywhere, more or less, in wet weather; but even then is worse on bottom lands. At other times, as far as my observation and information go, it appears only on that land that has been cropped for a long succession of years, in cotton, without change, rest, or manure. In new land, it rarely does any harm, unless it be low and wet—a wet soil and a moist atmosphere being what the cotton plant loves not.

What is called *rust* here—and I think is correctly so called—has its origin in the stem and branches, though it first shows itself in the leaves. These become covered all over with *splotches* of brown or russet, and soon dry up, so as to almost crumble at the touch. The branches and stem then show the same appearance. But if, on the leaves first becoming spotted. the stem be broken, it will be found diseased at the heart or pith, from the ground up. The plant dwindles, shrinks, and dies, without perfecting a *boul*.

The *causes* assigned to this disease, and the *cures* proposed, are—too much moisture, and draining recommended as a cure; iron in the soil, and the application of lime advised; some ascribe it to deep, and others to too shallow plowing; and some again to a superabundance of vegetable matter in the soil, and others to a lack of it. For my part, I had almost come to the conclusion that it was occasioned by some minute insect, which was aided in its operations by dark rainy weather, forcing the plant into a too vigorous, dropsical growth, during which the epidermis (outer bark) becomes thickened and softened, by which the insect is enabled to make more rapid progress in its injuries. Land that has been injured and exhausted by successive crops of any one plant, can not possibly sustain that plant in a healthy state, during the extreme vigor imparted to it by unusual growing weather; this being the case, it yields much more quickly to injury of any kind.

My opinion of an *insect* being the direct cause of the *rust* in cotton (and, by the way, under almost every leaf affected by it, will be found numbers of a minute species of aphis), has been much shaken, if not changed, by perusing an address by Dr. Leitner, published in the 8th volume of the Southern Agriculturist. There, Dr. L. states distinctly, that this disease "is occasioned by the *uredo gossypii*, a minute parasitic fungus, which I think arises originally from the deteriorated state of the soil, not furnishing the necessary and wholesome food for the plants. The functions of nutrition, secretion, and excretion, are of course disturbed, the vessels become gradually obstructed, and the tissue disorganized, which, when assisted by great moisture in the atmosphere, is often followed by a development of this fungus." The writer then goes on to explain how the fungus shows itself, and causes the injury; and how it is produced and increased by careless and exhausting cultivation; that "agricultural observations seem to show, that only wornout lands produce this disease, whereas the new land remains generally free from it; that open land that has been covered with saplings, briars, and a luxuriant growth of broom-grass, and other weeds, is most calculated to induce this evil, and that it is most prevalent in wet seasons. If you admit these views of the disease to be correct, it becomes evident that its prevention can only be effected by the improvement of our soils, the burning down of the crop as soon as rust is observed, and a rotation of crops. The latter, I think, will be found the most effectual remedy, as it is an established fact, that most of the parasitic mushrooms, though met with indifferently upon almost all the species of their respective natural orders, can not extend their ravages beyond that order."

Let the *cause* which produces rust be what it will, I have not a doubt but that the true *cure* is here pointed out. I am the more confirmed in this belief, from some observations I made last year; such as, that one field which I put in cotton, last season, had been in corn, so far as I could learn,

every year, for eight or ten years previous. To follow up this with such a crop as cotton, you will call rather *a queer improving rotation!* But so it was--even this change was of great advantage, as was proved by its being entirely exempt from rust, and affording a fine yield of cotton; while in that part of the *cotton field* proper (for you must know that few of us are troubled with a greater subdivision of our plantations, than a truck patch, a cow pen, a cotton and a corn field!) where cotton alone had been grown for many years, much of the crop was injured by rust, the oldest and the wettest land suffering most.

Lime being death to fungus plants, I should suppose the application of it, in this instance, would be very beneficial. I will try it. In fact, I shall persevere until I discover the cause of *rust*, as also of *rot*.

The crops of corn wear a most luxuriant and promising appearance. I only hope that we may have dry weather enough soon, to allow of the impregnation of the ears: if it continues much longer to rain so steadily, the pollen will be washed from the tassel, without its being able to effect the object intended by nature. More grain of every kind, and especially corn, has been planted this year, than ever was put in before.

THOMAS AFFLECK.

DURHAM BULL LOCOMOTIVE.

WE have received a letter from Mr. J. E. Letton, of Bourbon county, Kentucky, stating the superiority of his bull Locomotive, imported from the herd of Mr. Bates of Kirkleavington, England, in 1841. From this we make the following extract:—

"As to Locomotive and his calves, I have won the prize wherever I have showed them. His stock look fine, and handle superior to anything I ever saw west of the sea."

For the American Agriculturist.

ESPY'S PATENT CONICAL VENTILATORS.

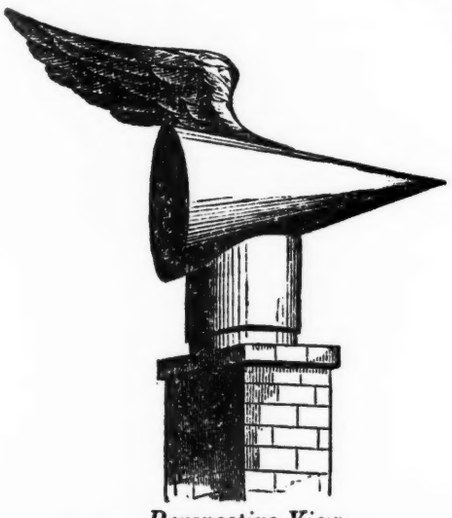
THIS cheap, simple, and efficient apparatus is adapted to all purposes of ventilation.

Basements and cellars, churches, court-rooms, steamboat cabins, school-rooms, hospitals, prisons, stables, vaults, dairies, &c., may, by its application, be rendered free from dampness and foul air: it is also an effectual *cure for smoky chimneys.*

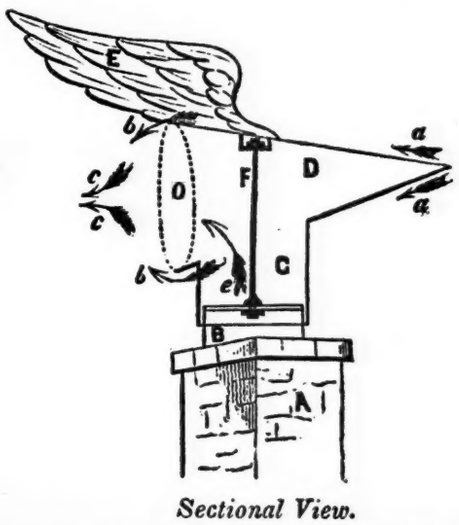
Deleterious gases, emitted by fires in fire-places attached to bad drawing chimneys, together with the chilly, damp atmosphere of most basements, even during dry, warm, summer weather, are the cause of much human suffering; especially in crowded cities. The gases in question, not unfrequently produce vertigo, nausea, &c., while the chilly dampness of basements, by suddenly checking perspiration, often lays the foundation for severe colds, incipient fevers, and other diseases.

These ventilators are confidently recommended as preventives of the dire effects of the above-described powerful, though subtle agents of disease

FIG. 36.



Perspective View.



Sectional View.

A practical Description of the above Sectional View.—Letter A denotes the top of a chimney; B, a cylindrical pipe, closely fitted with a rim and flange into the chimney; C, a cylindrical collar made to overlap about four inches, and large enough to turn freely around the pipe; D, a hollow cone so fitted and secured to the collar C as to retain, when in use, a horizontal position; E, a vane to keep the cone pointed to the wind; F, a perpendicular, substantial iron rod or spindle for the cone and collar to revolve upon; *a, a, b, b, c, c, e,* arrows representing currents of air.

Suppose the wind to blow as indicated by the arrows *a, a,* along the surface of the cone from its point to its base; on reaching the base of the cone it will converge as represented by the arrows *b, b, c, c,* and produce a partial vacuum at the mouth of the cone *o,* when a current of air will rush up the chimney A, as shown by the arrow *e.*

This draft-generating principle may easily be tested with a miniature model made of paper, or other material. Let a small flock of cotton or some other light substance be placed at the bottom of the pipe B, then hold the cone horizontally, the pipe being perpendicular, with its point to the breeze, or blow a blast of breath upon it, when a

draft will be produced, and the cotton forced up the pipe through the cone with a velocity in proportion to the force applied.

Persons wishing to adopt this apparatus, or to purchase a right for manufacturing and vending the article for towns or counties, can communicate with the agent S. W. Dewey, 109 Front street, New York.

We are favored, this month, with a continuation of Mr. Partridge's very valuable articles on City Manures; and we entreat the particular attention of our farmers to them. We trust, also, that our city papers will copy these numbers, for they can not possibly insert more useful or relevant matter for their readers.

For the American Agriculturist.

CITY MANURES.—No. V.

I have already given our farmers an account of ten highly-fertilizing materials hitherto thrown away in the cities of New York and Brooklyn. I shall proceed now to bring to their notice two other such materials, viz., *wood saw-dust and urine.*

I lately read an article in the Bath and Cheltenham Gazette, published in the city of Bath, England, that a Professor Daniels had taken a patent for a new compost, composed of wood saw-dust, charcoal, lime, and a small quantity of bitumen. It stated he had secured patents in England, France, Germany, and this country. If any reliance can be placed on the statement given in that paper of its fertilizing power, it must far exceed all other known composts. It stated that the professor had taken a given quantity of land, on which he had raised wheat four years in succession, increasing the product every year. Our farmers must be aware that this has ever been considered impossible. The first year the land was in its usual condition, and the crop was twenty-six bushels to the acre; the second year he applied some of his compost, and the crop was thirty-six bushels; the third year he added more of his compost, and the crop was forty-six bushels; the fourth year he gave more of the compost, and the crop was fifty-six bushels. He expressed himself confident of bringing the crop up as high as one hundred bushels to the acre.

Our farmers on Long Island, and in New Jersey, must be aware, that their only chance of making money by farming, will be by an increase of crops; for our railroads will enable distant farmers to send their produce to our markets, at a very trifling cost of transit. Those of our farmers, therefore, who are wise, will avail themselves of every means of increasing their crops, as the only chance of breasting the competition with distant opponents, who produce from new soils, on land of one tenth the value.

It has been long known that decayed wood, frequently found on wood land, was much valued by the horticulturists. I often had it collected, in England, for my own garden; but as it was not very abundant there, it was always used on the flower-beds.

From the number of saw-mills at work in the cities of New York and Brooklyn, the annual supply of wood saw-dust must be very large; and I would advise some of our enterprising farmers to collect and try it in their compost heaps, adding slacked lime and fine charcoal. The lime is apparently applied to cause a more rapid decomposition of the saw-dust, and to neutralize any acid it may contain; but it will be seen, in the following article on urine, that when in the soil it plays an important part in promoting vegetation. I would advise our farmers to put the above-named compost into their barn-yards and hog-sties, where it will not only undergo a rapid change, but the charcoal will absorb and retain all the ammonia now lost by evaporation. If a portion of the saw-dust should be the product of pitch-pine timber, no bitumen need be added; but when this can not be obtained, a small quantity of crushed rosin or pitch may be added to the compost heap.

I shall proceed to bring to your notice the urine thrown away in our cities. In the first place, I will show you the component parts of vegetable matter, and of carbonate of ammonia. By comparing the two, you will readily appreciate the importance of saving every drop of urine from your own families and barn-yards, as well as collecting it from our cities. In this explanation I must necessarily use scientific terms, as we have no common terms in our language by which to express their meaning. By comparison, however, the terms will show you that the component parts of vegetation and of carbonate of ammonia are the same, excepting about eight per cent. of the solid portion of vegetation.

The average elementary portion of vegetables consists of about 480 parts of carbon, 65 of hydrogen, 369 of oxygen, 40 of nitrogen, and about 46 of solid matter, in 1,000 parts.

Carbonate of ammonia contains, in 100 parts, about 50 parts carbonic gas, 30 parts of ammonia, 20 parts of water. Carbonic gas contains carbon and oxygen; the ammonia contains hydrogen and nitrogen. Thus we perceive that carbonate of ammonia contains within itself the elementary portions of all vegetable products. There is no other known substance containing within itself all these elements, and hence is derived its wonderful fertilizing power.

Stale urine contains a large portion of ammonia and of ammoniacal salts, which are mostly lost by evaporation, as it will continue to do, unless some material be combined with it capable of retaining the ammonia. Charcoal is undoubtedly the best substance for this purpose, as it will take up and retain within its pores more ammonia than any other known material.

Charcoal is a valuable product in the soil, independent of its retaining ammonia when presented to it by human agency. "It absorbs in large quantity into its pores, the gaseous substances and vapors which exist in the atmosphere." It separates from water any decayed animal matters or coloring substances which it may hold in solution. It also holds moisture with a tenacity greater than any other known material.

Our farmers may tell me they are well aware of the value of urine, but may ask how are they

to collect it in efficient quantity. I have thought of this difficulty, and believe it may be overcome by a little perseverance. There is a small shed behind the city hall, where many thousands of gallons might be annually collected. Let some farmer get the privilege from the corporation, of putting down a large receiver there under ground, filling it half full of fine charcoal, so as to take off the powerful effluvia—now so offensive—on condition of its being emptied twice a year, spring and fall. Let the same system be pursued at all the large eating houses and taverns. Instead of such places being as now, injurious to the health of the neighborhood, they would become perfectly sweet and innocuous. The difficulty would be greater in families; yet if it can be proved that those who inhabit houses can derive an annual income from attending to it, as well as take off all bad smells from every square in the city, I should presume the double inducement would make the system to be generally adopted. The greater portion of the urine of families is daily thrown into the privies. If every family would have theirs emptied once a year, and when emptied put into the vault two barrels of charcoal, and add one barrel of charcoal every month afterward, at the end of each year they would have about forty bushels of poudrette and urate, of a far better quality than any now sold, worth twenty-five cents per bushel to the person who may take it away, exclusive of the expense of removal. Thus every family might make a clear income of eight dollars per annum, beyond the cost of the charcoal, and keep the whole city free from the abominable, excrementitious effluvium now so pernicious to the health, and so obnoxious to the olfactories of our citizens.

It will be seen that carbon and oxygen form eight and a half parts in every ten of vegetable matter, and it is more than probable that carbonic gas supplies the whole of it. How amply has Infinite Wisdom provided for this immense demand! Can the geologist measure the carbonate of lime and other carbonates laid up by Creative Wisdom in our globe? Can the physiologist count the weight of carbonic gas daily exhaled by the animal creation? Can the philosopher form a distant conception of the immense supply hourly liberated by the rapid and slow decomposition ever progressing on our earth's surface? If man has not the power to measure or count the supply, he has *given to him the power to collect and apply it* for his individual and general benefit.

It was my intention to have explained, in this essay, the effect of lime in promoting vegetation when mixed in soils, as hinted when treating of its operation on saw-dust; but as this article is already too extended, I shall defer it to some future opportunity.

WM. PARTRIDGE.

WE have received the samples of wool of which Mr. Cockrill speaks. They are really very choice and fine, and would rank high in our market. An inspection of them would be evidence in favor of what he asserts, viz., that wool improves by taking sheep from the north to the south; an opinion which we have always entertained since we knew anything of wool. The most intelligent buyers here, with whom we have conversed, also assert the same, and we do not know who at the north maintains the contrary opinion. Our able correspondent upon Sheep Husbandry, in his communication—No. 3, in July number—says, that *five* cents per lb. extra, is paid by an extensive wool-purchaser for that grown in the southwestern states, on account of its *superior softness* over that grown at the north.

For the American Agriculturist.

IMPROVEMENT OF WOOL IN SOUTHERN LATITUDES.

Nashville, Tenn., 6th June, 1843.

DEAR SIR:—I send you herewith six samples of Saxon wool. No. 1 was grown by me, when I had my flock in Mississippi, latitude 32½°, which I have proved to be the very best wool-growing country that I have ever seen. I have carefully sampled sheep from the south, as far north as Boston, Massachusetts, of all the different bloods, and find the same breed producing far better wool in a southern than northern latitude. I have compared wool grown by me in latitude as above, with American, and many imported samples, and find that wool in the south is softer, finer in the fibre, and more beautiful. I now have my flock near Nashville, where they do not do as well as in the south. In the south they live almost all the year upon green food.

You will find the samples sent you, soft, fine, and of the true length for the first quality of cloth, and, I think, not inferior to any you can procure. I would be pleased to hear how this wool is liked in the north, and what your northern people found their opinion upon, when they say the south can not grow fine wool. Spain and Australia are the most successful wool-growing countries. Spain, where the fine-woolled sheep originated, is an orange-growing region. Yours truly,

MARK R. COCKRILL.

For the American Agriculturist.

POUDRETTE AS A MANURE FOR FALL CROPS.

DEAR SIR:—The question has been often asked by farmers, whether *poudrette* is a good manure for *fall crops?* whether it will answer for *wheat?* and if it will produce a crop of grass after wheat, or whether its fertilizing properties are absorbed by the first crop? With your permission, I will give a few short extracts from letters received from practical farmers, who have used it on wheat, in comparison with other manures; and the best evidence I can possibly have of the estimation in which it is held by them, is in the fact, that they have purchased this year, and used it in larger quantities than any previous year.

Mr. Lemuel Soper, of Huntington, L. I., says: "I also used poudrette on wheat, at the rate of forty, sixty, and even seventy bushels to the acre. Where I used forty bushels to the acre, I got *as good wheat* as where I used forty wagon loads of

barn-yard manure, and *equally as good* as where I used sixty or seventy bushels of poudrette to the acre."

Mr. Edward Condict, of Morristown, N. J., says that "early in October last, I used the poudrette on a loamy soil, somewhat inclining to clay, which I had prepared for wheat. There was no difference in the soil, nor in its preparation, except that on about one fourth part of it, after the wheat was sown, about twenty bushels of the poudrette to the acre was also sown, broad cast; and the result is, that on harvesting that part where the poudrette was put, is much the heaviest grain, and but very little injured with the rust or mildew, while the other part of the field is considerably injured."

Mr. Samuel Fleet, of Hastings, Westchester county, says that he "finds it very efficient, if applied when seeding down. The seed *took* much better, in the same field, where poudrette was applied at seeding, than where other manure was used, the whole being put down at the same time."

Mr. Wm. Wickham Mills, of Smithtown, L. I., says that "where the poudrette was used, the wheat came in well. It stood the winter well, and the berry was fair; but where bone was used, about the same cost to the acre, in the same field, it was winter-killed, and very much shrunk, and the produce was only about one half the number of bushels to the acre."

Captain R. B. Coleman, of New York, used 125 bushels of poudrette on his farm, near Poughkeepsie, in the fall of 1839, on wheat, at the rate of twenty-five bushels to the acre. His object was to lay it down to grass, and he desired to ensure good crops. June 5th, 1842, he says, "The ground on which the poudrette was put, can be distinctly marked out, by the luxuriant growth of grass on it being superior to that adjoining."

From these extracts it will be seen, that *practically* the questions asked in the commencement of this article, are answered in the affirmative; and it is the opinion of those who have had good opportunities to judge correctly, that it will be found as valuable for fall crops as for corn and other spring and summer crops.

D. K. Minor.

New York, July 13th, 1843.

ROAD-HORSES.

For the last seven years of our life, we have been strenuous in deed, and by word and pen, endeavoring to awaken the attention of the public to breeding a better race of road-horses throughout the country. But we might just as well have undertaken to galvanize the dead, as stir up the great body of our farmers to this important subject. There would now and then come a short spasm, and an occasional throe from some spirited man or two in different quarters of the land, and then all would die away again, and remain cold and stiff, till at last we almost gave the thing up in despair. It is therefore particularly gratifying to us, to have recently received a letter from Dr. A. Campbell, of Middletown, Ohio, dated the 8th of last month, from which we make the following extract:

Bellfounder is doing a good business here the present season. Since he has shown specimens of his stock among us, he has become emphatically the "Lion of the day." He has had eighty mares already, and I have now sent him to Mr. Steddoms, at Lebanon, to make a fall season; and although there less than a week, seventeen more have been engaged to him. He is in the finest condition imaginable. His tail is very thick, and has grown so long that it absolutely drags now upon the ground. His colts excel in size, &c., the expectations of every one who saw the horse last season. The Pennsylvania Germans settled here are especially pleased with him.

Mr. Munson Beach, of Lebanon, Ohio, also writes a friend in this city to the same effect as the above; and we are rejoiced for the sake of the farmers of that district, and the improvement of their horse stock, that they can appreciate in a small degree, the value of so excellent a roadster as Bellfounder.

Viator's compliments to John Fitz, Esq., of the Prairie Farmer, assuring him that the sugar in question had no part of a muskrat skin boiled down in it, but only partook of some 'possums, with a sprinkling of the 'coon.

Manitouwoc, July 13th, 1843.

For the American Agriculturist.

SOUTHERN CALENDAR FOR AUGUST.

Make it a matter of especial attention to have everything in readiness for picking cotton. It requires only the same time to prepare, and if done in time, you will have no detention. I therefore urge you to examine baskets, sacks, gin stand, gin band, running gear, presses, &c., and if anything requires repairing, do it immediately. Continue your improvements all spare time, such as grubbing, &c.; repairing fences about lots, repairing buildings, making shingles and scaffolds to sun cotton.

Cut crab-grass hay, throw into heap-rows, there to remain for a day, then into tall narrow heaps until cured. Clean your potato plantings, designed for seed or slips. Gather the fodder from late corn. Thrash the grain derived for fall sowing, to provide against loss of time from cotton-picking, when the seed will be wanted, and that you may have the straw to pack away with the pea-vines, if you intend to save them.

Prepare turnep ground at once, if not done, a day or two extra work will not be missed 100 years hence, and you will be well paid. Procure Dale's hybrid turnep seed, and sow on the 15th, rain or no rain, Sundays always excepted. Sow half a pint of seed to the acre, any how, though old folks say a tablespoonful is enough; I would rather have a pint cup full. Unless the earth be wet, or decided appearance of rain, I would advise covering by brushing in: the last season taught me this. I had more turneps in half-a-dozen rows, where brushed, than on 8 acres where harrowed in. The ground should be made fine by frequent harrowings and plowings, then a brush rather settles the earth to the seed.

Bud peach-trees of this year's growth, the best if

well cultivated. Procure buds from your neighbors, even if at a distance of 10 to 20 miles, to choice fruit; the same labor will grow a tree producing a delicious fruit, as one of those little tasteless hard things too often seen.

About the middle of this month, cotton will have sufficiently ripened and burst its covering, to permit your hands to average some 30 to 50 or 60 lbs. per day. When you can gather this amount, get to it; you will save much of that which has opened from rain or injury, by hands passing between rows. Open the branches out to the sun, and a freer circulation of air, causing it to open sooner, and not to rot for want of the sun to open it, and you will be the better able to keep up with the opening.

Top cotton early in this month, if not done the last of July.

M. W. PHILIPS.

For the American Agriculturist.

NORTHERN CALENDAR FOR AUGUST.

KITCHEN GARDEN.—Finish planting savory and other cabbages for late autumn and winter use. In the early part of the month spinach for fall use can be sown, and that for early spring use in the latter part of the month. To endure the winter well, the latter should be sown on dry, gravelly ground. Turneps for autumn or winter use should be sown in the early part of the month. Plant now a crop of late celery, and continue to throw up the earth to the growing crops of celery. Small sallading can still be sown every week. If the weather be favorable, peas and kidney beans may be planted in the early part of the month. They may produce a good crop, although the chances are somewhat against it. Lettuce for fall use can be sown and transplanted from former seed beds. Crops of melons and cucumbers should be kept particularly clean, and if the weather be very dry, moderately watered in the evening. Lima and Carolina beans hoe well, and all runners that trail upon the ground cut off; they only take sustenance from the bearing vines. The manure heap should now be kept clear of weeds, which would otherwise ripen and grow in the ground on which the manure is placed the ensuing year.

FRUIT GARDEN AND ORCHARD.—This month is the most suitable time for budding apples, pears, plums, cherries, nectarines, apricots, almonds, &c. Keep the ground entirely clear among the seedlings and small trees.

FLOWER GARDEN AND PLEASURE GROUNDS.—Transplant from the seedling beds the various kinds of annual, biennial, and perennial flowers, that were not transplanted last month. Plant your bulbs which may be out of the ground, such as crocuses, colchuchens, narcissus, amaryllis, frittillarias, crown imperials, snowdrops, lilies, irises, and martagons. Also take up, separate, and transplant the roots of pæonias, flag-irises, and other tuberous-rooted flowers, whose leaves are decayed. Suckers that have been thrown up from fibrous-rooted plants can be taken off and transplanted. Collect and transplant flowering plants from the woods and fields, removing them with a ball of earth, and cutting off the flowering stems if there are any. Water freely all newly-planted flower-roots; cut down the stems of those that have bloomed; loosen the earth about potted plants; clip hedges if omitted last month; mow the lawn once a fortnight; keep clean and in order the gravel-walks, flower-borders, and shrubbery. Trim and tie up straggling plants, and inoculate all you wish to propagate in that way. Gather flower seeds as they ripen; but let them remain in the pods until the season for sowing.

FOREIGN AGRICULTURAL NEWS.

By the steam-packet Caledonia, we have our files of European journals to the 4th July.

Markets.—Cotton has fallen ⅛d. per lb., and accounts from this side of the water, of the prospects of the coming crop being more favorable, together with the large stock on hand, has had a depressing effect upon the market. The import into Liverpool for the past six months amounted to 1,150 000 bales, against 826,000 to the same period last season. The supply from the United States was 1,038,000, being an increase of 354,000 bales. The stock on hand the 1st July, was 912,000 bales, against 645,000 bales at the same time last year. The import and stock has been increased the last three days, by the further arrival of about 60,000 bales of American cotton. American provisions of all kinds were fast overcoming the prejudice which interested people had got up against them, and were in good demand, with an upward tendency. In Beef, Pork, Lard, Butter, Cheese, Tallow, and Oil-cake, a heavy business was doing. American oil-cake has taken precedence over the French, and almost annihilated importations from that quarter. Little was doing in Grain and Flour; the market however was firm.

Money is very abundant, and great difficulty existed on the part of capitalists to invest advantageously. It is not worth over 1½ to 2½ per cent per annum; and no doubt good *unrepudiating* American stocks will be soon sought for by European capitalists. Up to the present time, however, they are shy of pretty much all our securities for investment. The flow of specie to this country has nearly stopped.

The *weather* was fine, and crops promising.

At a meeting of the Roy. Ag. Society of England, on the 21st June, Lord Portman in the chair, the following communications were made:—

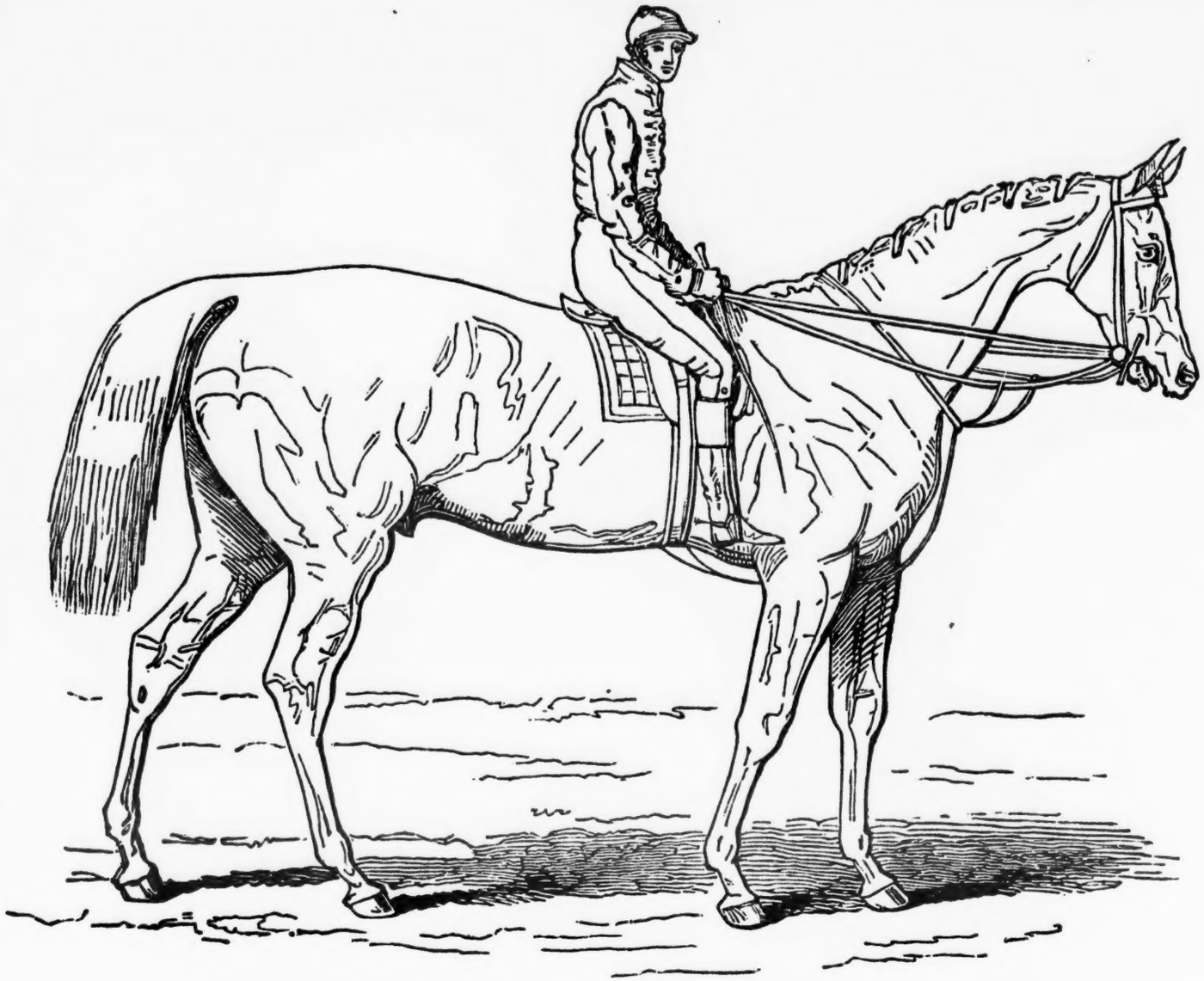
Food Steamer.—Mr. Henry Colman, Agricultural Commissioner from the United States, presented to the Society a model and sectional drawing of Atwater's Steam Generator, for domestic use, for cooking food for cattle, and for several other purposes to which steam may be applied. Mr. Colman entered into a minute explanation of the construction of this new steaming apparatus, and stated that the principal advantages of the invention were the rapidity with which steam might be produced, the little cost of the machine, the small amount of fuel it required, and its portableness.

Indian Corn Sugar.—Mr. Colman likewise presented a sample of sugar made from the stalks of Indian Corn, or maize (*Zea Mays*). This was a fair sugar, and in the state in which it was taken from the pans after the evaporation of the juice. Mr. Colman considered that this sugar might be made a valuable product wherever the Indian Corn could be grown; and stated that the plant, when sugar is to be made from it, is not allowed to ripen, or form its seed, and that the stalk only is used. The leaves or blades, and top of the stalk, called the spindle, may be saved for fodder, and the stalks, after they have been pressed, will furnish feed for cattle. Mr. Coleman remarked that it had been already ascertained that more than one thousand pounds of sugar can be obtained from a single acre, and he had no doubt that probably double that amount would eventually be obtained by proper cultivation and management, the manufacture being yet in its infancy; but that in respect to cost, quality, and the facility with which farmers may supply themselves with this important article of domestic consumption, the best results might confidently be anticipated. The sample then

DESCRIPTON.—Cotherstone is a good bright bay, stands rather over fifteen hands two inches high, with black legs and one white heel behind; head rather plain and large, good deep shoulders, well thrown back; very deep in the girth, round body, splendid quarters, well let down, and looking from behind him, very wide hips, showing great power; carries his tail a little away from his quarters; good strong arms, thighs, and hocks, short from the hock to the ground; very sound clean legs and feet; has a fine temper, good hardy constitution, and altogether presents the appearance of a powerful, racing like nag.

PEDIGREE.——Cotherstone was bred in 1840, got by Touchstone (winner of the St. Leger in 1834), out of Emma (the dam of Mundig, the winner of the Derby in 1835, and of Trustee, the sire of *Fashion*), by Whisker (winner of the Derby in 1815), her dam Gibside Fairy by Hermes, out of Vicissitude by Pipator—Beatrice by Sir Peter, &c.

We are indebted to the politeness of Wm. T. Porter, Esq., editor of the Spirit of the Times, for the accompanying graphic cut of one of the best horses which England has lately produced. We saw some of this sort of stock while recently in England, and greatly admired it. Cotherstone has substance enough about him to get good roadsters.



COTHERSTONE, WINNER OF THE DERBY, 1843.—(FIG. 37.)

submitted to the notice of the council was derived from a first attempt at the production of the Indian corn sugar in America, but there was no reason why similar success should not attend the trials made in this country.

Flax.—Mr. Colman also presented to the society several specimens of flax, prepared by steam, with a view to its being spun on common cotton machinery: namely—

Specimen, No. 1.—Green flax broken, and the fibres separated entirely by the action of machinery, and called the "stem flax."

Specimen, No. 2.—Green flax broken, the fibres separated, and the glutinous matter washed out entirely, by the action of machinery and pure cold water.

Specimen, No. 3.—Flax which had gone through the same processes as the two former specimens, with the addition of hot water, and a small quantity of alkali in the last water; also shortened and equalized for spinning.

Specimen, No. 4.—Yarn spun from flax in specimen No. 3, on a cotton throstle, with the preparation and carding altered.

Mr. Colman, at the same time presented a specimen of perennial flax, a plant growing wild in Calhoun county, Michigan, U. S., and transmitted to him by Mr. T. I. Walker, of Eckford.

Silk and Cotton.—The following specimens of silk and cotton were also presented by Mr. Colman to the society:—

1. A specimen of wild silk found upon the forest tree in the interior of Mexico, produced by an insect, said to be of the spider family, and resembling floss silk.

2. A specimen of silk-cotton, from a tree of the Bahama islands.

3. A specimen of native cotton, found growing in a wild state in the interior of Mexico, the produce of a large tree.

Mr. Pendarves, M.P., then moved a vote of thanks to Mr. Colman for the interesting specimens and details he had brought under the notice of the council; and having dwelt on the advantages the society would derive from the information Mr. Colman, as one of their honorary members, would from time to time lay before them during his present visit to England, he would, he trusted, be enabled, after his agricultural tour through the kingdom, and especially after his personal attendance and inspection at the ensuing Derby meeting, to carry back to America a favorable report of the agricultural improvements of the Old Country.

The noble chairman was quite sure that the proposition then submitted to the council required no seconding; and the motion being put, the vote of thanks was carried unanimously.

Protruding of the Uterus.—The Stamford Mercury says, that a cow, the property of Mr. Evison, of this place, a short time since, soon after calving, protruded the uterus. Mr. Raynor, of Candleby, farrier, being called in, cut off the part, and to the surprise of every one acquainted with the operation, the cow is doing well.

On the Relative Influence of the Parent Animals on the Sex of the Offspring.—In the Ten Towns Messenger, are some curious observations on this subject, which we extract.

The influence exerted by the relative age of the parents in determining the sex of the offspring, I think I shall show to be considerable, all other things, as health, and condition, nature of keep, &c., being equal.

If the male is younger than the female, or if they are of the same age, the offspring will probably be female.

If the male is but very little older, a few months or a few years, according to the longevity of the kind of animal, the sex will be doubtful, and probably depend on their relative health and strength at the time of impregnation.

And lastly, if the male be considerably older than the female, while yet his animal powers are undiminished in vigor, the greater the difference, the more likely will it be that the offspring shall be male.

The following table is illustrative of the relative influence of the age of the parents on the sex of the offspring. This table is drawn up from the records of the British peerage, where, of course, every particular of marriages and births has been for ages recorded.

Where the husbands were younger than the wives,		to 100 girls were born 86 boys.
"	"	of the same age as the wives, to 100 " " 94 —
"	"	older from 1 to 6 years, to 100 " " 103 —
"	"	older from 6 to 11 years, to 100 " " 126 —
"	"	older from 11 to 16 years, to 100 " " 147 —

It will at once be seen, that the influence shown by this table is too striking to be the result of chance. It is drawn up from the ages alone, without taking into consideration any secondary causes, and yet, notwithstanding this, the probability is shown to be nearly as high as *three* to *two* in the extreme. Now, should the analogy hold good between man and domestic animals (and there is every reason to believe it does, in a great measure, with such as produce one or rarely more at a birth), I think it will be granted me, that this influence is sufficiently great to demand our attention. This, however, is the point at issue, which I hope your readers will aid in solving.

That the relative condition of the health and strength of the parent animals at the time of impregnation should have some considerable influence in determining the sex of the offspring, where the age and other circumstances are equal, it is easy to conceive, but very difficult to prove. I have no facts to offer on this head, but the very marked manner in which the offspring in other respects sometimes takes after one parent, sometimes after the other, successively, is strong presumptive evidence that such would be the case with reference to the sex.

Ventilation in the Cheese-room.—Mr. Livesey, in the Preston Chronicle, contends strongly for a plentiful supply of pure air where cheese is kept. He says full one half of the cheese, last summer, was very much faded and strong-flavored, and had to be sold at a reduced price; in many instances, so much as 10 per cent. below the price of a good article. Although there are other causes which produce these effects, I have no doubt the chief cause was keeping them in close, small, confined rooms. I scarcely ever go into a cheese room, but I find both the door and window closed; and when these rooms are filled with cheese, the air is so bad and polluted, as almost to be suffocating. My first effort is, generally, to get the window open; but in this I am often frustrated, for I find it either without any opening, or nailed up; and in many cases the cheese are crammed into a small room, without window or any means of ventilation whatever. Cheese being *animal matter*, can not have too much air. I have noticed for some time, that those dairies that have been kept in a large well-aired room, have been quite sound; and those kept in a close, sickly room, were either

faded or very bad in the flavor. Though cheese should not be kept in too high a temperature, yet they will bear the summer heat tolerably well, provided they have a constant supply of good air. There is no objection to a little artificial heat, in winter, from a stove or a fire, but this should always be accompanied with a supply of pure air. The difficulty to contend with is twofold: first, the want, in many farm-houses, of a suitable cheese-room; and, secondly, the prejudices of the dairymaids. They have a long-cherished idea in favor of closed doors, and closed windows, and dark rooms. To prevent flies, they sometimes say, is the reason for keeping the room dark and close; but this is the best plan for increasing them, by producing putrid matter in the cheese. And as for flies, a pennyworth of quassia chips, boiled in a pint of water, well sweetened, and put on plates, will kill thousands directly. As I have this week seen several lots of new cheese, in close-confined rooms, which, if they are kept for any length of time, are sure to rot, I am the more anxious to warn the cheesemakers in time, now that hot weather is approaching, to open the doors and windows of their cheese-rooms; and, in cases where there are no openings, either to set their husbands or the joiners at work, immediately, to make them.

THE EDINBURGH JOURNAL OF AGRICULTURE for July is an excellent number, from which we have space to merely condense a paragraph or two.

The Decomposition of Manure mainly depends upon the presence of moisture, and, during the process, a certain degree of heat is created. *Water*, therefore, is decomposed in the first instance, and experiment has proved that, during that phenomenon, a stream of electricity passes, to an extent so vast as to strike one with awe. It is fair, then, to infer that electricity, revealed by the decomposition of water, disturbs all the elements of the manures, and induces them to recombine in the form of ammonia, carbonic acid, and humus.

Night Soil contains all the elements of every plant, and in a state of combination which proclaims it to be superior. Why do we neglect it? Why, on the contrary, do we divert it to the worst of purposes? Were it duly collected, condensed, and applied, our farms would require no foreign appliances, no expensive importations, or spurious attempts at imitation.

Potato Starch.—We find in the Cleveland Herald the following method of making potato starch, and it says it is the veritable Bright Farina and Arrow-root which we see so highly lauded in the London papers.

Take half-a-dozen large and smooth potatoes, wash them in clear fair water, and then carefully pare off all the rind. Next grate them fine with a suitable tin grater. The pulp must be mixed with a pailful of cold water, and thoroughly agitated and squeezed by the hand or any suitable instrument, at the same time throwing away the fibrous matter, and permitting the starch to subside to the bottom of the vessel. To this must be repeated fresh washing of cold water, till the pure Farina is obtained free from all other matter. This should then be spread on earthen dishes, and dried in a warm airy situation.

The good housewife will exclaim, "Why this is nothing but potato starch." True, it is not, nor have you used any other article under the name of arrow-root for the sick members of your family, though you may have purchased it at the rate of several shillings per pound.

By proper modes of cooking, known to every nurse and housekeeper, this article becomes a delightful beverage for invalids weak of digestive powers; while as a pleasing dietary, even to persons in good health, it possesses a strong attraction.

Editor's Table.

NOTICES OF THE PRESS.

It is proposed to publish the following national work, viz: The Trees of America, pictorially, botanically, and entomologically delineated; embracing a Complete Description of the Forest Trees of North America, their culture, management, and propagation; uses and economy in the arts; introduction into commerce; and their application in useful and ornamental plantations, and in landscape gardening. By D. J. Browne, author of the Sylva Americana. This work has been prepared, as far as practicable, in accordance with the plan proposed by the author in his Memorial praying Congress to adopt measures for procuring and preserving a supply of timber for naval purposes. —[Doc. 241, 25th Congress, 2d Ses.]

Conditions of the Subscription.—The work complete will form a beautiful imperial 8vo volume of 500 pages, ornamented with 300 fine wood engravings printed in the text, and published in ten numbers at 50 cents each, or $5 a volume, bound in cloth. Mr. Browne for a long number of years, has been devoting his attention to the subjects of the above work; we have seen a part of it in manuscript, and can assure the public, that it will undoubtedly be the best and most complete book ever published on the Forest Trees of America.

ECONOMY OF FARMING.—We are glad to learn that a work called Economy of Farming, translated from the German Manual of Land Husbandry of J. Burger, Professor of Agriculture in Vienna, with notes from the works of Thaer, Veil, Schwertz, Sprengel, Petri, and others, with an index by E. Goodrich Smith, will soon be issued from the press of Leavitt & Trow, of this city. From the specimen we have seen of the work, we think it will prove a valuable addition to the works of agriculture already offered to the public; as it contains a great variety of estimates of the proportions of labor, fodder, and manure, and the relations of the different parts of the farming operations to each other. We understand the work will be published in an octavo form, on good paper and type, with a large page, and that it will make a pamphlet of 130 or 140 pages, and will be sold by the single copy at a price not to exceed 50 cents. It contains much curious and useful practical knowledge, as the results of numerous experiments of a practical kind are given with great accuracy. The original work from which it is taken, has passed through nine editions, in Germany. The translation and notes have cost much labor, and the value of the work has been enhanced. The translator was employed in the preparation of the late Reports on Agriculture by the Commissioner of Patents, and the present work has Mr. Ellsworth's commendation.

THE WESTERN FARMER AND GARDENER, published in Cincinnati, Ohio, edited and illustrated by Charles Foster, assisted by M. W. Philips, of Miss.—24 pages, double columns octavo, monthly; price $1 a year. We are glad to see this excellent work revived, and wish Mr. Foster all possible success in it. He is in the centre of a broad and fertile country, whose principal products are those of agriculture, and such journals as these should receive a liberal support. It is a double number—11 and 12 of Vol. III.—which we have received. The matter is good; the cuts numerous and appropriate. That of the Cotton planter, or Sand-hill Hog, is a *caution* to all beholders, and in gazing upon his delectable proportions, our optics "acknowledge the corn," as they say at the west, for this certainly beats our immortal Land-pike and Alligator "into fits."

LECTURES ON THE APPLICATION OF CHEMISTRY AND GEOLOGY TO AGRICULTURE, by Jas. F. W. Johnstone. Published by D. K. Minor, 23 Chambers street; Saxton & Miles, 205 Broadway; and Saxton, Peirce, & Co., Boston. 180 pages, price 37½ cents. This is Part III. of these able and lucid lectures, the very best, certainly, upon these subjects. The public may well be obliged to the publishers, for issuing it in so portable, neat, and cheap a form. No farmer should be without this work.

THE ENCYCLOPEDIA OF GEOGRAPHY, by Hugh Murray. Part XI. is out, price 25 cents. Lea & Blanchard, Philadelphia, publishers. C. S. Francis & Co., 252 Broadway.

REVIEW OF THE MARKET.

PRICES CURRENT IN NEW YORK, JULY 24, 1843.

ASHES, Pots,	per 100 lbs.	$4 50	to	$4 56½
Pearls,	do.	5 31½	"	5 37½
BACON SIDES, Smoked,	per lb.	5½	"	6
In pickle	do.	5	"	5½
BALE ROPE	do.	6	"	9
BARK, Quercitron	per ton	22 00	"	24 00
BARLEY	per bush.	46	"	48
BEANS, White	do.	1 12½	"	1 25
BEEF, Mess	per bbl.	8 00	"	8 25
Prime	do.	5 75	"	6 25
Smoked	per lb.	7	"	7½
Rounds, in pickle	do.	4½	"	5½
BEESWAX, Am. Yellow	do.	28	"	30
BOLT ROPE	do.	12	"	13
BRISTLES, American	do.	25	"	65
BUTTER, Table	do.	12	"	15
Shipping	do.	6	"	10
CANDLES, Mould, Tallow	do.	9	"	12½
Sperm	do.	20	"	35
Stearic	do.	19	"	24
CHEESE	do.	4	"	7
CIDER BRANDY, Eastern	per gal.	40	"	45
Western	do.	28	"	30
CLOVER SEED	per lb.	6	"	8
COAL, Anthracite	2000 lbs.	4 50	"	5 25
Sidney and Pictou	per chal.	5 50	"	6 00
CORDAGE, American	per lb.	11	"	12
CORN, Northern	per bush.	57	"	58
Southern	do.	56	"	58
COTTON	per lb.	5	"	10½
COTTON BAGGING, Amer. hemp	per yard.	16	"	18
American Flax	do.	14	"	16
FEATHERS	per lb.	19	"	28
FLAX, American	do.	7	"	7½
FLAX SEED, rough	per 7 bush.	9 00	"	9 37½
clean	do.	— —	"	— —
FLOUR, Northern and Western	per bbl.	4 87½	"	5 50
Fancy	do.	5 75	"	6 00
Southern	per bbl.	4 75	"	5 50
Richmond City Mills	do.	5 75	"	— —
Rye	do.	3 37½	"	3 50
HAMS, Smoked	per lb.	5½	"	7½
Pickled	do.	4	"	5½
HAY	per 100 lbs.	45	"	50
HIDES, Dry Southern	per lb.	9	"	10
HEMP, Russia, clean	per ton.	200 00	"	205 00
American, water-rotted	do.	140 00	"	180 00
do dew-rotted	do.	90 00	"	140 00
HOPS	per lb.	11	"	15
HORNS	per 100	1 25	"	5 00
LARD	per lb.	5	"	8
LEAD	do.	3½	"	4
Sheet and bar	do.	4	"	4½
MEAL, Corn	per bbl.	2 87½	"	3 25
Corn	per hhd.	14 00	"	14 50
MOLASSES, New Orleans	per gal.	22	"	24
MUSTARD, American	per lb.	16	"	31
OATS, Northern	per bush.	27	"	29
Southern	do.	22	"	24
OIL, Linseed, American	per gal.	75	"	80
Castor	do.	57	"	60
Lard	do.	60	"	65
OIL CAKE	per 100 lbs.	1 00	"	— —
PEAS, Field.	per bush.	1 25	"	— —
PITCH	per bbl.	1 12½	"	1 37
PLASTER OF PARIS	per ton.	2 00	"	2 25
Ground, in bbls	per cwt.	50	"	— —
PORK, Mess	per bbl.	11 00	"	11 50
Prime	do.	9 00	"	9 50
RICE	per 100 lbs.	2 75	"	3 00
ROSIN	per bbl.	70	"	1 06½
RYE	per bush.	65	"	67½
SALT	per sack	1 40	"	1 50
SHOULDERS, Smoked	per lb.	4	"	4½
Pickled	do.	3	"	3½
SPIRITS TURPENTINE, Southern	per gal.	29	"	31
SUGAR, New Orleans	per lb.	5	"	6¾
SUMAC, American	per ton	25 00	"	27 50
TALLOW	per lb.	6½	"	7½
TAR	per bbl.	1 62½	"	1 87½
TIMOTHY SEED	per 7 bush.	11 00	"	13 50
TOBACCO	per lb.	3	"	7
TURPENTINE	per bbl.	2 25	"	2 50
WHEAT, Western	per bush.	1 12½	"	1 15
Southern	do.	1 10	"	1 15
WHISKEY, American	per gal.	22	"	24
WOOL, Saxony	per lb.	35	"	40
Merino	do.	30	"	35
Half-blood	do.	25	"	27
Common	do.	18	"	22

New York Cattle Market—July 24.

At market, 900 beef Cattle, (750 from the south,) 50 Cows and Calves, and 1800 Sheep and Lambs.

PRICES.—*Beef Cattle* were very dull, and prices barely maintained—we quote $3 50 *a* $5, with a few at $5 25. 150 unsold.

Cows and Calves.—All taken at $15, $25 *a* $28.

Sheep and Lambs.—Sales 1600 at $1 12½ to $2 50 for Lambs, and $1 to $3 25 for Sheep, which is a decline.

REMARKS. *Ashes* are in good demand. *Candles*, firm. *Cotton*, notwithstanding the late news per Caledonia of fall of price in England, the large stock on hand, and the depressing state of the market, there is no alteration here; and the article is held firm at previous prices, in consequence of an expected short crop. Export since 1st September last, 1,959,913 bales; same time last year, 1,412,740; same time year before, 1,248,870. *Flour* and *Grain* of all kinds in good demand, and an active business is doing in them. *Hay*, the same. *Hemp* in moderate request. *Molasses* and *Sugar* advancing. *Naval Stores*, large sales. *Provisions* in fair demand. *Seeds* are rather improving. *Tobacco*, an upward tendency. *Wool*, a very active demand, and prices full 25 per cent. higher than three months ago.

Money, 3 to 4 per cent. on good paper, 6 to 7 per cent. on bond and mortgage

Stocks are firm and advancing.

Crops.—We have gloomy accounts from the bottoms of the Mississippi—deluging rains, and overflow of the river have seriously injured the cotton, rice, and sugar. In other parts, the crop it is thought will be a fair one. The wheat and hay harvest is nearly over, and the crops are an average, taking the whole country through. Corn looks well, though still late. There has been great want of rain along the seaboard, but at the west an abundance. Grass and root crops, of course, have suffered here, but not at the west.

Business generally is good, and confidence seems at last to be restored. Most of our manufactures are in full operation, and everything seems to be upon a solid foundation.

TO CORRESPONDENTS.—Americus, No. 4, S. W. Jewett, George Vail, and several others, are at hand. We must repeat, that anything received *later* than the 20th, can not have an insertion in the No. of our paper to be issued on the 1st of the next month; and to insure an insertion, it would be better to be here as early as the 10th.

CONTENTS OF AUGUST NUMBER.